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AN ILLUSTRATED QUARTERLY MAGAZINE DEVOTED
TO THE STUDY OF BIRDS IN THE FIELD

Edited by **LYNDS JONES**

OFFICIAL ORGAN OF THE WILSON ORNITHOLOGICAL
CHAPTER OF THE AGASSIZ ASSOCIATION

OLD SERIES, VOLUME X. NEW SERIES, VOLUME V.

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AN EARLY MORNING RAMBLE IN AUTUMN IN THE WILL-BE POTOMAC PARK.

To the lover of birds, no place about the metropolis is more attractive than the low reclaimed area which, according to the wish of Congress, is soon to furnish Washington with a most beautiful as well as extensive park. Here the tide of avian migration surges back and forth twice each year, and thousands upon thousands of birds make it their home, some for a short, others for a longer period, and many, no doubt, are residents for life.

If one views this area from the Washington Monument it appears as an extensive meadow, girt on all sides by sea walls, washed by the Potomac River, and crossed by the Baltimore and Potomac Railroad near the upper end. But how different does this area appear when one seeks a closer acquaintance with the premises.

A tangle impenetrable presents itself on all sides. It would be impossible to move at all were it not for the fact that industrious anglers have beaten a path near the edge under the row of skirting poplars and weeping willows, in order to approach the favorite haunts of the finney prey. Rag-weed, poke-weed, golden-rod and asters attain a maximum development in this alluvial soil, and these are frequently matted by interlacing smart-weed and morning-glories.

In order to observe the birds under the best advantages, it becomes necessary to cut a path toward the center of the island where a row of trees mark an elevated ridge. The lower portion of the field is covered by a dense growth of low willows, and wherever there is room, tall, stout stems of poke-weed, draped with numerous bunches of purple berries, extend their branches through the tops of the willows. Thus we have thicket and tangle every where, be it rag-weed, willow or golden-rod, and our trusty, rusty machete is called into requisition, as well as the oldest suit in our possession, and thus armed we set out. It is hard work, and for once it seems as though we believed in "work before pleasure." Tired, we return, scarcely a bird noticed except the ever present Song Sparrow and a curious Maryland Yellow-throat. We renew our efforts the second day and reach the ridge which extends down through the center, and now it is comparatively easy to proceed as here an old path seems to have been too well packed to permit of much vegetable growth. We are happy, and anticipate many pleasant hours. So much for preliminaries.

20759

This morning, October 7, 1897, found me on my usual pre-breakfast ramble to the flats. I reached them by fifteen minutes to six, just as day was making an earnest effort to dispel the lingering shades of night. All is wrapped in mist and fog. As I stand on the elevated rail-road track and gaze over the flats, they appear more like a sheet of water: in fact it would be impossible to tell where land and water merge were it not for the tops of the fringing poplars.

Taking up my trail, I force my way cautiously out toward the center. Every twig and leaf is moist with dew, and so am I before I have advanced many rods. The Song and Swamp Sparrows are moving up into the tips of weeds to catch the first gleam of Old Sol as he pushes his rays through the thick mist causing the tops to appear as if studded with sparkling gems. A "squeak" brings a host of them from all sides, and I observe that *Zonotrichia albicollis* has appeared during the night. All seem eager to know what is up, and a second "squeak" brings them all about me, some so close that I could take them with my hand if they would permit, without moving. They now give vent to their anger and denounce the intruder with scornful angry notes, moving about appearing like little furies.

I leave them, and in another place where tall rag-weed forms a thicket of twenty or more feet in width and several hundred in length, bounded on both sides by a maze of golden-rod, asters and poke-weed, I crouch low, for here the lower leaves have long since fallen, no doubt due to the absence of sun-light which is shut out by the green canopy above. This growth reminds one of a miniature pine forest. Here I again "squeak" and a Maryland Yellow-throat replies. Soon a whole family of these ever curious fellows is inspecting me from all sides. A little more "squeaking" brings up a Golden-crowned Thrush, all in a rage, strutting about with raised crest, drooped wings, cocked tail and ruffled feathers, subjecting me, the source of all trouble, to close inspection, adding a few angry remarks. But I am looking for another bird, the Connecticut Warbler, and a little more "squeaking" lures him from his tangle. In his movements he resembles the Yellow-throat to some extent, but he is a little more deliberate. While not shy, he nevertheless moves cautiously from reed to reed and darts back into the maze when danger threatens. Very rarely does he leave this retreat for a more elevated position, and I have only once observed him to fly into a tree, when he was suddenly surprised while walking in my path. He is quite silent at this season, due no doubt, to the extreme abundance of adipose tissue. Before I leave this place an aggressive House Wren has joined the ranks of my denunciators.

The sun is now fairly up and threatens short existence to the fog. As I approach a bunch of sumac I notice a host of warblers in their tops, and for the first time see the Black-poll and the Yellow-rump Warblers perform their ablutions. The pearly dew is still dropping from the leaves, and this is a sparkling fountain for these birds. They will settle on a petiole and move toward the tip of the leaf, rapidly beating their wings down upon this, causing the dew to fly over them in a fine spray. I watched them for some time. Wondering how effective such a bath might be, I leveled my gun upon one and dropped him. He was wet—not only on the under parts but all over; thus this bathing method proved to be quite an effective one.

Looking down, my eyes fell upon a little rabbit, far from half grown, all bunched up and shivering in the chill moist air, patiently longing for Old Sol's rays to assume a more vertical slant and warm little bunnie's jacket. A little "squeaking" brings ap some of our earlier acquaintances, a few angry mewing Catbirds and a Water Thrush.

No other species except a few Goldfinches feeding on the seeds of Ambrosia, are noted until we reach the poplars. Here a crow moves off with alarm and a Flicker keeps his distance. A Cooper's Hawk swoops down among the birds but moves off empty footed, and a flock of noisy Red-wings passes by. A dead member of the row, gives a resting place to a bunch of Wax-wings, who are playing catch with the drowsy insects which are taking their morning flight.

As I pass by the maples on my return trip I notice a Robin in the tip-top of one of the trees sending up his morning prayers. His breast has faded from the red of spring-tide to a more humble hue; but his voice is just as cheery as it was then. I stride on, knowing that breakfast is waiting, and note as the last accession a Black-throated Green Warbler flitting ahead of me as I hasten on to regale the inner man.

One naturally wonders how many of these thousand birds will visit this gem of bird retreats when artful man will have changed the tangle to a park, when lawn supplants the weeds and avenues my path.

PAUL BARTSCH, *Washington, D. C.*

October 9, 1897.

NOTES ON SOME OF THE RARER BIRDS OF CHESTER COUNTY, PENNA.

GREAT BLUE HERON, *Ardea herodias.*—A solitary individual freqented

a certain mill-dam on Crum creek, Willestown township, for several summers, being protected by the miller. One of his own boys took advantage of his absence during September, 1896, and shot it. It doubtless was an old bachelor bird returning yearly to its old haunts.

Bald Eagle, *Haliæetus leucocephalus.*—My latest record is April 7, 1894, when a bird in the first year's plumage was wounded and captured in Tredyffrin township by a local sportsman. It recovered and may still be seen at the old Sorrel Horse tavern.

American Osprey, *Pandion haliætus carolinensis.*—While not an uncommon fall transient, it is a rare spring migrant. A pair was observed in the woods adjacent to a mill pond in Easttown township during the latter part of April, 1893. Although we have no record of it breeding within the county lines, I think it quite probable that this pair would have nested in the neighborhood had not the male been shot. The female lingered about for over a week and then disappeared. The male was shot April 29th and brought to me. His stomach was distended with fish and frogs.

American Barn Owl, *Strix pratincola.*—Two adults and three well developed young observed by a friend on the evening of August 25, 1893, in a piece of hardwood-oak, hickory, etc.—timber near Berwyn. The old birds evidently nested here as they were seen at about the same place the previous fall. Unfortunately he shot the adults and one young, and my opportunities for studying this quaint and harmless bird in life are correspondingly lessened if not altogether restricted. The female is in my collection.

Hybird Flicker, *Colaptes auratus+cafer.*—A male secured by me on the 3rd of October, 1894, is referable to this form. The short black malar stripes exhibiting a narrow border of red.

Fish Crow, *Corvus ossifragus.*—Pennock, in his "*List of Birds of Chester County, Pa.*" says "Rare resident if it occurs at all." I have a specimen which was found dead under a spruce tree in this village, March 6, 1891. It was a male, in poor flesh, and probably died from exposure.

Blue-headed Vireo, *Vireo solitarius.*—Quite a flight occured near Berwyn during the first two weeks of October, 1891. I have not observed it since.

Orange-crowned Warbler, *Helminthophila celata.*—October 12, 1894, while watching the movements of a small flock of Juncos which were feeding under some bushes in a thicket, a small bird darted out and across my path, a lucky snap-shot in that direction laid low a fine male.

This is the first recorded capture for our county and less than half-a-dozen have been made in eastern Pennsylvania.

TENNESSEE WARBLER, *Helminthophila peregrina*. — An immature female secured September 19, 1891.

CAPE MAY WARBLER, *Dendroica tigrina*.—On May 11, 1895, I observed a perfect male in a sassafras bush close at hand, a favorable opening gave me an excellent view and I noted every marking that was particularly rich in appearance. A moment for observation, another for it to get a little further from the end of my little 38 caliber collecting gun, a defective cartridge, and it was away before I could reload. It proved to be the find of the year.

RED-BREASTED NUTHATCH, *Sitta canadensis*.—I took a male of this species October 15, 1889, my only record.

I also desire to record the occurrence of the following rare species, in Newtown township, Delaware county, Pa.

CERULEAN WARBLER, *Dendroica cærulea*.—I secured an immature female from some beech timber September 24, 1889, but unfortunately shot it too badly for preservation entire.

FRANK L. BURNS, *Berwyn, Penna.*

THE BIRD CENSUS.

OBERLIN, OHIO.

There could hardly have been a more favorable winter day for taking the census of the birds of Oberlin than the 28th day of December, 1897. The sky was clear, saving a few fleecy clouds in the morning, the temperature ranging from 18° in the morning to 36° at noon; the air still. Just sharp enough to give zest to out-door life without discomfort; just bright enough to give activity to the birds.

At eight o'clock in the morning Mr. W. L. Dawson and the writer prepared to take the bird census of Oberlin within a three-quarter mile limit of the center, excluding one natural grove and two open fields within this limit because they would not fairly represent the true village bird life. It is hardly necessary to say that we were not able to cover the whole ground laid out. However, by hard work we managed to take a fairly accurate census of two-thirds of it. For the benefit of any who may wish to consult the map of the town in BULLETIN 16, I will say that the

only parts of town which we did not go over are: that part which lies south of Plum Creek east of South Professor Street, except the east edge of Professor Street; and the college campus and the greater part of the block immediately north of it. The business part of the town I do not mention, because it could hardly be reckoned in the census.

A hint of our method may not be amiss here. The English Sparrow was excluded, for obvious reasons, and only native wild birds counted. Every individual was carefully recorded on the map in the situation in which it was first seen, by symbols previously agreed upon. In our effort to allow no bird to escape our notice we worked together closely enough to be within easy call for the most part, one scanning the trees on each side of the street, the other skirting back yards and inter-street orchards and shade trees, except when such were too extensive for one to do thoroly, when the street and the middle of the block were worked separately.

The element of repeating records seems, on first thot, to be a serious one. But after we had recorded the occupation of a number of the birds—getting breakfast—this element gave us no further concern. It is very doubtful if half a dozen birds were recorded twice. There was some shifting about, to be sure, but not of sufficient extent to go beyond the bounds of the immediate field of work.

The census revealed the presence of eleven species, one of which, the Horned Lark, was seen only in passing over-head. Below is the list of species with the number of individuals seen.

Downy Woodpecker, 12.	Flicker, 2.
Horned Lark, 3.	Blue Jay, 15.
American Goldfinch, 11.	White-breasted Nuthatch, 1.
Chickadee, 4.	Tree Sparrow, 17.
Pigeon Hawk, 1.	Junco, 7.
Bronzed Grackle, 1.	Total individuals seen, 74.

At this rate the village could boast about a hundred native wild birds within the three-quarter mile limit, and probably three times that many within the city limits proper, since three natural groves, three large open fields and Westwood Cemetery are included within the limits.

The Tree Sparrows were seen in brushy and weedy vacant lots in companies of five and ten (two stray individuals). A company of thirteen individuals noticed in a brushy pasture was outside of the limit set. The Juncos were feeding with the English Sparrows in brushy places, five in one place, two in another, the two and the five Tree Sparrows with English Sparrows. The Blue Jays were promiscuously scattered,

but inclining to be in groups. Their record is : 4, 3, 3, 2, and three singles. The first Goldfinch was with a company of ten Tree Sparrows, then a company of seven in a weedy yard with a Downy Woodpecker, and three feeding near an osage orange hedge-row. These and the Blue Jays were the most erratic. The Flickers were solitary individuals, widely separated; both were in orchards. The Chickadees and ten of the Downy woodpeckers were in pairs, or more properly doubles. The Chickadees were in shade and ornamental trees; all but one of the Downy Woodpeckers in orchards, and this one was feeding upon weed seeds in a weedy yard with Goldfinches, as stated above. The comradeship of but two individuals, with these two species, was very marked. It was a great disappointment not to find more Nuthatches. This one was in an orchard. The Pigeon Hawk and Bronzed Grackle were undoubtedly more accidental than regular. The Grackle was hiding away in the thick foliage of an evergreen tree.

The entire absence of the Hairy Woodpecker, Song Sparrow and Golden-crowned Kinglet was a great surprise. A further search would probably have revealed them.

Comparing this small number of wild birds with the superabundance of English Sparrows, we are forced to the conclusion that there must be upwards of ten thousand English Sparrows inside of the three-quarter mile limit. In the aggregate this seems a large number, but when we realize that this gives less than twenty to the acre, and that the blocks average more than ten acres each, it does not seem too liberal. The sparrows gave us far more trouble than all else combined, both on account of their constant noise and the necessity of watching each one to be sure it was not some other species.

This super-abundance of sparrows gives at least a suggestion of the reason why the native wild birds are so few. There simply is not room for them, nor food enough for them and the sparrows too. The presence of the Pigeon Hawk, and the occasional appearance of the Sparrow Hawk well within the city limits is pleasantly suggestive. Tree Sparrows are far more numerous outside of town, and English Sparrows are never seen in the country, except about country houses, in winter.

Three distinct difficulties were encountered in making the census, each one of them serious. First and most serious was the Sparrow; second, the noise of passing vehicles, and third, the small boy with his whistle and lusty voice. Such little things as high picket and wire fences, thorny hedge-rows, inquisitive house-keepers, and threatened incarceration as lunatics are not to be considered. They are incidents of the trade

This bit of experience has taught us that he who would be a successful bird census taker must be possessed of a good supply of patience, a keen sense of the importance of thoroness, an abundance of "nerve" if his field is a town, and a good pair of legs. The work must be done in one day, of course, so that the shifting about of the birds will be reduced to its lowest terms. This census taking, if given as much attention as the note taking which every lover of the birds indulges in during the Spring, will fill in the usual Winter blank with notes second to none in point of interest. Try it!

There is another sort of Winter work, closely allied to the census taking, which is less arduous, perhaps, but almost as interesting and profiable. It is what Mr. Dawson has aptly termed the "CENSO-HORIZON." It consists of making a record of each bird seen during a walk about town or during a more or less extensive excursion into the surrounding country. No attempt is made to cover any prescribed area. It has been my privilege to make several such censo-horizons during the present winter, twice in company with Mr. Dawson. Allow me to say here that two persons, provided both are equally interested in the birds, are better than one for such work. What one may overlook the other is likely to see.

One of the most extensive of these outings, December 31, 1897, began at 6:30 in the morning when the electric car whirled me toward Lake Erie. A solitary Flicker was the first and only bird seen from the car window. The sleety snow driven by a stiff north-easter, and a temperature of 25°, were probably responsible for the scarcity of birds. Before night-fall the temperature had reached 16° with gusts of sleety snow at short intervals. After the car left me in sight of the roaring breakers, my route lay along the lake beach (for a fringe of several rods of pack-ice held the waves back) for about four miles. Here I saw nine Am. Herring Gulls, three Mallards and one Sharp-shinned Hawk, all in earnest quest of food. After beating about in the marshes until satisfied that they were inhabited by no other species than Tree and Song Sparrows and Junco, my homeward tramp of fifteen miles began. It lay along the valley (narrow for the most part) of a small stream—Beaver Creek. This narrow valley is well wooded, and its sides are steep; hence it is an ideal refuge from the fierce winter storms. I need not give in detail the bird life of the valley on that day, but only summarize the results. First I should mention the flock of nine Horned Larks seen coming across the lake just before the start for home.

In all, sixteen species and 162 birds. Not an English Sparrow was seen during the whole trip! The Woodpeckers, Nuthatches and Chickadees were in pairs.

Bob-white, 7.
Hairy Woodpecker, 2.
Downy Woodpecker, 6.
Flicker, 2.
Goldfinch, 3.
Song Sparrow, 5.
Cardinal, 3.
White-breasted Nuthatch, 6.
Tufted Titmouse, 6.
Chickadee, 8.
Tree Sparrow, 90.
Junco, 10.
Sharp-shinned Hawk, 1.
American Herring Gull, 9.
Mallard, 3.
Blue Jay, 1.
Total, 162.

Compare this with a trip across the country some ten miles and back in company with Mr. Dawson, on January 4, 1898. The day was perfect. A clear sky, bright sun, almost bare earth, and scarcely a breath of air from the south-west until noon, and then only a light breeze. Our objective point was a narrow gorge of Chance Creek which boasts a liberal growth of evergreen trees, besides the other native trees, shrubs and bushes. The start was made at 6:45 in the morning, and the return was accomplished at 6:00 in the evening. On this trip we recorded eighteen species and 208 birds. The detailed record follows.

Blue Jay, 3.
Chickadee, 14.
White-breasted Nuthatch, 21.
Hairy Woodpecker, 10.
Downy Woodpecker, 4.
Flicker, 2.
Tree Sparrow, 109.
Goldfinch, 17.
Tufted Titmouse, 6.
Junco, 5.
Song Sparrow, 1.
Red-billed Woodpecker, 2.
Bald Eagle, 1.
Pigeon Hawk, 1.
Red-shouldered Hawk, 1.
Am. Rough-legged Hawk, 1.
Ruffed Grouse, 4.
Golden-crowned Kinglet, 6.
Total, 208.

Let me again urge all who can do so to try this sort of winter study.

LYNDS JONES, *Oberlin, Ohio*

SAINT JOSEPH, MISSOURI.

I had only time to go along a road near town for about a quarter of a mile. It was bordered on one side by a small, poorly made hedge, beyond which ran a small stream then frozen over and fringed with bushes

and small trees. On the other side of the wood was a field and further on a thinly wooded tract. I did not leave the road and the whole piece examined on December 26th did not include over a few acres.

The birds I saw where as follows:

In the bushes along the stream, Tree Sparrows, 40	40
In the trees along the stream, American Crossbill 30, Northern Shrike 1, Cardinal 2, Chickadee 3	36
In the field, Prairie Horned Lark 3	3
In woods bordering field, Crow 5, Blue Jay 2, White-breasted Nuthatch 1, Hairy Woodpecker 1, Downy Woodpecker 2, Screech Owl 1	12
On the ground by a fence, Bob-white 5	5
Flying overhead, American Goldfinch 6, Hawk 1	7
Total	103

SIDNEY S. WILSON.

AFIELD IN A STORM.

Doubtless few ornithologists care to be abroad in a wind storm, for in addition to more or less bodily discomfort, collecting is almost an impossibility; yet some things can be learned at that time not accessible in more favorable weather. Some species of birds disappear entirely as long as it lasts, others do not seem to mind it at all, while a third class battle against it with indifferent success, picking up an irregular existence only through great exertion.

The equinoctial storms swept over the country March 19, 1896, a driving rain from the south, followed by one of the most beautiful rainbows I ever beheld. Daylight breaking on the 20th with the temperature at a standstill one degree above freezing and a northwest wind blowing probably at the rate of forty miles an hour, I concluded to spend a couple of hours in the Great Chester valley.

Few birds were abroad, the cold wind forcing them to seek shelter. The creek having overflowed its bank the day before, leaving a deposit of black mud for many rods on either side, small companies of sombre-plumaged crows were wading about in the slime or buffeting heavily against the wind immediately above it, searching for the detached mussels and other edibles thrown up by the freshet. Of all the birds the White-breasted Nuthatches appeared to mind the searching wind the

least, cheerfully seeking out their daily rations in the bark crevices. The certain knowledge of convenient and comfortable cavities close at hand probably contributed not a little to their ease and contentment of mind. Now and then I startled a solitary Song Sparrow from its retreat under the overhanging bank or the roots of a tree, but the most curious experience of all was the sight of a Broad-winged Hawk at close quarters. With half-spread tail and wings it was clinging to the south side of a pile of cord wood. Discovering my presence in a moment, it flapped to the ground and brushing past me, sprang lightly in the air, turning when but a dozen feet away and repassing me without special hurry or alarm, came to the ground in the meadow a hundred yards beyond; from which I again flushed it to a sheltered hill-side, where I left it, sincerely hoping that "the man with a gun" would not see it while it was in the exhausted condition resultant from the hard battle with the fierce gusts of wind. A pair of Spotted Sandpipers startled from the swamp grass in which they were hiding, ran screaming to a safer refuge, appearing more afraid of me than the hawk, passing the latter at close range. The wind finally drove me home without birds or fish, but not without a certain pleasure of a morning well spent.

FRANK L. BURNS, *Berwyn, Pa.*

GENERAL NOTES.

SOME WINTER BIRDS OF SAN MIGUEL CO., NEW MEXICO.—The following are some of the winter birds observed during five weeks in Las Vegas, with several trips up the mountains to El Parvenir and Harvey's, at an elevation of nearly 10,000 feet.

HOUSE FINCH.—One of the commonest species, taking the place of the English Sparrow, which is conspicuously absent.

DESERT AND RUDDY HORNED LARKS.—These two species are abundant on the mesas and plains, the latter species predominating. They congregate in large flocks during the winter months.

MEXICAN RAVEN.—Very abundant in the mountains, in immense flocks. Can be found feeding on the sides of mountains among the Pinons and in cornfields.

GOLDEN EAGLE.—Common in the mountains near Anton Chico, thirty miles from here. They breed there quite commonly. I secured a fine photo of a live bird nine months old captured by a farmer from its nest in a cave in the mountains.

Rocky Mountain and Western Bluebirds.—Both these species are fairly common about dwellings but rarely seen in the country.

Long-crested Jay.—Abundant in the mountains among the Pinons.

Slender-billed Nuthatch.—Tolerably common in the city, where it feeds on the trees in the plazas and parks, often accompanied by the Creeper.

Pink-sided Junco.—Abundant in small flocks near the settlements and towns.

Cooper's Hawk.—Fairly common in the country districts.

Spotted Owl.—Rare. Two observed about twenty miles from here, but unfortunately had no gun with me so could not procure them for perfect identification, but am almost certain as to their identity.

Walton I. Mitchell, *East Las Vegas, New Mexico.*

PRESIDENT'S ADDRESS.

The year 1898 opens with much that is encouraging to the true student of birds. There has been notable progress in genuine ornithological science; and there has been general and evident success in efforts for creating proper sentiment towards birds, among the general public.

Ornithological journals are showing a very welcome increase in articles and notes bearing evidence of careful and intelligent observation of birds.

The life history of the bird, from the time it leaves the egg, and its relations to other birds, is our field. This is the province of the Wilson Ornithological Chapter. Its committees are working earnestly on subjects of ornithological importance.

We have great reason to be proud of Mr. Jones' 'Grackle Bulletin." It represents careful and extended field work and is highly deserving of the praise which it received through leading ornithological journals. This report is a striking example of what one man with intelligence and perseverence may accomplish, even in these times when we think there are comparatively few new things in ornithology for us to discern.

There are many ornithologists who are able to observe a few good things which, published alone, might attract little attention and quite likely would sooner or later pass into scientific oblivion; but these notes combined with the observations of other workers make a sum total of ornithological information that will command respect and interest in every library. This system of co-operation which gives the observer credit for his efforts and produces results of significance is the plan of our chapter.

Mr. Jones, as general chairman, has outlined the work of these committees in previous BULLETINS, so it is not necessary for me to refer to it more extendedly.

As President of the Chapter, I wish to encourage to the fullest extent the active co-operation of the members in the various movements toward the protection of birds, which are now on foot. We can do much by our example and influence. "Bird Day," "Audubon Societies," etc., all deserve our earnest and united support. The whole chapter should constitute itself a committee on bird protection.

R. M. STRONG, *Lake Forest, Ill.*

EDITORIAL.

A photograph from which one of the plates in *Gleanings from Nature* is to be made is at hand. If the picture is an index of the work as a whole, Mr. Jacobs has a rich treat in store for us, in this number (No. 1) of the series, which treats of abnormalties of eggs and sets. The plates will illustrate I, abnormal coloration. II, abnormal size. III, abnormal size and shape. IV, shape and coloration, size and coloration, size, shape and coloration.

The Schaller Audubon Society, Schaller, Iowa, Miss J. E. Hamand, Secretary, sends a neat leaflet issued in the interest of the protection of birds. The rapid increase in the membership of these societies for the protection of birds is a gratifying indication of a changing sentiment toward the birds. The mere collector is being rapidly relegated to the back-ground and will soon be a thing of the past. We have far more need of the birds than of their skins.

Calls for BULLETINS 1, 2 and 3, long since out of print, have become so numerous and persistent that we have decided to reprint them under one cover, provided sufficient advance subscriptions are received to pay for the printing. The price per single copy, containing the three BULLETINS, will be 25 cents. Those desiring this reprint should send their request at once to the editor. The money need not be paid until the copy is delivered.

PUBLICATIONS RECEIVED.

The American Monthly Microscopical Journal, Vol. XIX, No. 1, January, 1898.

The Auk, Vol. XV, No. 1, Jannary, 1898.

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Book Reviews, Vol. V, No. 7, January, 1898.

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The Microscope, Vol. V, Nos. 11 and 12, November and December, 1897.

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Science, Vol. VI, Nos. 153, 157, December 3 and 31, 1897.

Stories from Nature, Vol. I, No. 7, December, 1897.

Transactions of the Texas Academy of Science, Vol. I, No. 1.

OFFICERS, COMMITTEES AND MEMBERS.

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The *Nesting* of the *Warblers*—H. C. Higgins,.....Cincinnatus, N. Y.
The *Food* and *Song* of the *Warblers*—Lynds Jones,.....Oberlin, Ohio.
The *Flicker*—Frank L. Burns,.....Berwyn, Pa.
The *Swallows*—Stephen J. Adams,.....Cornish, Me.
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WANTED! The following numbers of *The Osprey:* October, and December, 1896, February, 1897. Will exchange other publications, or pay cash. Address, LYNDS JONES, *Oberlin, Ohio.*

CENTRAL PARK
NEW YORK

THE LORAIN COUNTY, OHIO, WINTER BIRD FAUNA, FOR 1897-8.

During the winter that has just passed, a special effort was made by Mr. W. L. Dawson and the writer to determine as nearly as possible the actual bird fauna of the middle and north-western parts of Lorain county. With this end in view excursions were made into the surrounding country whenever opportunity offered. These excursions were seldom more than hasty half-day dips into the woods and fields within a mile of Oberlin, rarely extending three miles away in any direction.

During December only five such excursions were made, on the 3rd, 18th, 28th, 30th and 31st. That of the 28th was devoted to making a Bird Census of Oberlin village, that of the 31st was a trip to Lake Erie and across country home. Accounts of both may be found in BULLETIN 18, pages 5 to 9. During the month 24 species were recorded.

Five excursions were made during January, on the 4th, 8th, 22nd, 25th and 29th. One of these was across country to Chance Creek, an account of which may be found on page 9 of BULLETIN 18. 23 species were recorded during the month.

In February only four excursions were made, on the 5th, 11th, 12th, and 28th, one of these, (12th) being a repetition of that of December 31st. 26 species were recorded for February, only one of them, the Crow, being a migrant from the south.

These records would make it appear that the same species were recorded each month, and that therefore the species in question are at least moderately plentiful the county over. But a glance at the records will disabuse our minds of that fallacy, for there were but 16 species common to the three months. One, Pigeon Hawk, was recorded in January and December, but not in February. 4, Am. Herring Gull, Cardinal, Meadowlark, and Horned Lark, were recorded in December and February but not in January. 2, Red-shouldered Hawk and Bald Eagle, in January and February but not in December. 3 in December alone, 4 in January alone and 6 in February alone, one of these was a migrant, as has been said. This variation in the species recorded each month is due to two causes principally. First, the weather: the cold of late December driving some species south, and the influences of spring felt during the warm periods of later winter, calling others forth from their hiding places. And second, the difference in direction of the more extensive

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excursions—those in December and February being across country to Oberlin, in a region almost devoid of evergreen woods; the one in January being across country and back again, into a region well-supplied with evergreens. It should be added that the Lake Erie trips were made by the writer alone, while that to Chance Creek was in company with Mr. Dawson. The complete list includes four species which were recorded by Mr. Dawson but not by the writer.

At no time during December was the ground entirely covered with snow for more than a few days at a time. The only severe weather occurred during the third week, when the temperature reached zero on the 24th, but was speedily followed by a marked rise to thawing weather. January was almost free from snow, with barely freezing temperature during the day, and with a marked warm wave when the temperature reached 60° on the 12th. February opened with below zero temperatures and a little snow, but the reaction of the beginning of the second week culminated in high temperatures, reaching 61° on the 11th. This warm wave marked the beginning of the 1898 spring migrations. Crows appeared in considerable numbers, Bronzed Grackles and Song Sparrows increased in numbers and were singing lustily, Prairie Horned Larks were pairing and scattered to their nesting places, and a general breaking up of winter quarters occurred among all of the resident species. The colder weather beginning on the 15th and continuing during the remainder of the month, with the deepest snow of the winter, drove the Prairie Horned Larks into flocks again, but the other birds did not seem to be affected by it much. Regarding the winter as beginning on the first day of December and ending on the last day of February, there was no weather severe enough and the snow was never deep enough for a considerable period to drive the more hardy northern birds south. On the other hand, the weather was not mild enough to make a northern stay agreeable to the few species which sometimes winter with us, but usually go south in fall. Hence, the past winter may be regarded as an average one for this region.

The list of the species recorded during the winter follows:

American Herring Gull, 12.
Mallard, 3.
Bob-white, 33.
Ruffed Grouse, 4.
Mourning Dove, 27.
Sharp-shinned Hawk, 1.
Red-tailed Hawk, 1.
Red-shouldered Hawk, 4.
American Rough-legged Hawk, 1.
Golden Eagle, 1.
Bald Eagle, 1.
Pigeon Hawk, 3.
Sparrow Hawk, 6.
Screech Owl, 1.
Hairy Woodpecker, 28.
Downy Woodpecker, 49.

Red-bellied Woodpecker, 12.
Flicker, 12.
Horned Lark, 125.
Prairie Horned Lark, 100.
Blue Jay, 60.
Meadowlark, 3.
Bronzed Grackle, 6.
Purple Finch, 2.
American Goldfinch, 43.
Snowflake, 20.
Lapland Longspur, 2.
Tree Sparrow, 564.
Junco, 34.
Song Sparrow, 17.
Cardinal, 5.
Cedar Waxwing, 9.
White-breasted Nuthatch, 74.
Tufted Titmouse, 16.
Chickadee, 45.
Golden-crowned Kinglet, 6.

Total number of species, 36. Total number of records, 1330.

It will be seen that this list does not include several species which we claim as residents, notably all of the Owls except the Screech Owl. Nor does it include a number of the more northern birds which often spend the winter with us. Of these the American Crossbill, Northern Shrike. Winter Wren and Brown Creeper are conspicuous examples. Not infrequently the Crow and Robin have spent the winter in the county, but they were not present last winter. Hence it appears that this list does not comprise anywhere near all of the species that might be looked for during the winter months.

This winter study of the birds has been a source of great profit and pleasure in the midst of wearing duties. To him who is seeking a first acquaintance with the birds it must prove of the greatest value.

LYNDS JONES.

BIRD CENSUSES.

BERWYN, PA.

Agreeable to the request of our Chairman of the Committee on Geographical Distribution, I sallied out at daybreak on the 11th of February for the purpose of taking a winter census of the birds of my district—one square mile of territory as described in the December *Osprey*.

Before the day was spent I found that I would be unable to complete the last and most difficult quarter,—that section lying south of the Pennsylvania railroad and including the greater and most built-up portion of the village; therefore the population here given is for an area three-quarters of a mile in extent.

The day was fair and mild, with just a breath of air blowing from the south-east, temperature, 40°–63° F. The ground was bare, with the

exception of a mottling of snow in the woods sloping away from the sun and a few drifts from two inches to two feet deep in northern and western exposures. The budding spicewood and the hardy swamp cabbage were our first hints of a spring to come.

My chief difficulty lay in working hedges and briery fence-rows. Two persons working together could readily overcome this difficulty. The birds, with few exceptions, were well out in the sunlight, the balmy weather accounting for the poor showing of the woods and thickets. I was much disappointed in the small number observed in the numerous small orchards, from which I had hoped to take many records.

As almost all kinds were associated in flocks, the chance of repeating records was at a minimum. Doubtless a substantial percentage was overlooked, particularly in solitary individuals hiding in the grass, weeds, greenbriers and evergreens, or like the Owls or "Sapsuckers" tucked away in the bowels of forest and orchard trees.

My first find of note was a flock of fifty-six plump little Goldfinches making their morning toilet while perched on a bushy roadside tree. My record is as below :

69 Crows, 1 flock of 46, remainder in pairs or detached 155 Juncos, 7 flocks of 10, 15, 16, 22, 24, 30, 33, respectively, 5 detached and solitary. 18 Tree Sparrows, with Juncos. 8 Song Sparrows, with Juncos. 52 Goldfinches, 2 flocks, 6 and 46. 1 Bluebird. 8 Meadow Larks, 1 scattered flock. 1 White-breasted Nuthatch, solitary. 3 Cardinals, 1 pair, 1 solitary. 4 Downy Woodpeckers, solitary. Total 319, not including the English Sparrows, which were most numerous in the vicinity of buildings, but not uncommonly found feeding with the Juncos along the fences and borders of thickets. I have also divided the birds according to location as follows:—Fields, fences and hedgerows, 152. Yards and orchards, 24. Brambly upland thickets, 2. Borders of swampy thickets, 72. Woods, 8. Flying ones, 61.

Deducting the 61 Crows flying over and the single Bluebird, on the ground that they are not true winter residents of this district, and adding the probable 25 per cent. overlooked, we have in the neighborhood of 400 native birds to the full square mile. Doubtless ten times that number of English Sparrows subsist in the same territory.

The above is a poor showing in comparison with a horizon taken the day previous in a two-mile walk—going and returning—southeast of Berwyn—where both food and shelter are more plentiful. As it was a business trip I could not loiter, yet I observed 13 species and 197 individuals, divided as following: 7 Bluebirds, 1 Purple Grackle, 5 Downy Wood-

peckers, 35 Cedar Waxwings 1 Flicker, 5 Blue Jays, 1 Cardinal, 1 Chickadee, 5 Tree Sparrows, 12 Song Sparrows, 80 Juncos, 30 Crows, and 14 Meadowlarks.

FRANK L. BURNS, *Berwyn, Pa.*

WADY PETRA, ILL.

February 6, 1898, 7:30 A. M. The one old Flicker still here at the depot. Saw a flock of 30 Prairie Hens fly by over a corn-field. These are the only ones seen for three or four months.

There is a foot of snow on the ground which has been here for fully two weeks. I walked along the creek thru half a mile of thicket and a quarter mile of open woods, from 8:30 to 9:30 A. M. 30° to 32°. Wind S. E.

In the thicket a company of 7 Chickadees and 11 Tree Sparrows. 8 Prairie Horned Larks flew over. In the woods I found a noisy company of 13 Chickadees, 3 White-breasted Nuthatches, 4 Downy Woodpecks. 1 Hairy Woodpecker and 1 Brown Creeper, with 7 Crows at a little distance. Total, 86 birds including 10 species.

February 13, 1898. 46°. Partly cloudy. Disagreeable south-west wind. 2 to 3:25 P. M. Locality as before. 3 Chickadees, 3 Downy Woodpeckers, 7 Crows, 4 Prairie Horned Larks, 8 Cedarbirds—the first *flock* I ever saw. I also noted 30 or 35 small birds fly over, which, from their flight and size, I think were Cedarbirds.

V. H. CHASE.

BIRD HORIZONS.

LORAIN COUNTY, OHIO.

The pleasurable work of taking bird censo-horizons and bird horizons has gone steadily on since the last report. The most notable one since those reported in the last Bulletin was that of March 12. The one of February 12 has been dwelt upon not a little on a preceeding page. For five days previous to March 12, spring-like weather had prevailed, and on the three days immediately preceding, the temperatures had reached 60° at noon, not falling below 40° during the night. Light southerly winds and clear weather was the rule, but on the 11th rain fell in warm showers. The 12th opened cloudy with a light south wind and a temperature of 51° (which fell to 40° before night).

The route planned lay north-westward across country to Chance Creek, thence northward to Lake Erie, and eastward on the lake shore to Lorain, making a trip of about 25 miles exclusive of the return home from Lorain on the electric road. Let me say here that the ground was soft and all the streams rushing torrents.

The start at 6 A. M. gave promise of anything but a phenomenal record. Before I had walked half a mile, however, it became apparent that a censo-horizon would be impossible, because the birds were everywhere. At the end of that half-mile 16 species had been recorded, one of them new for the year. At the end of the third mile there were 23 species recorded in my book, equalling the best previous record, and two of them were arrivals. At Chance Creek the list was swelled to 33, with five new for the year. The remaining seven species were records for the lake shore, and five of them were new. Thus 40 species were recorded, including 13 new ones for the year.

The weather continued warm and cloudy until noon, when a brisk north-west wind chilled the air and shrouded the landscape in thick fog. At 2 o'clock in the afternoon a cold, drizzling rain set in and continued the rest of the day. Yet in spite of the fog and rain and the chilly wind, seven species which had not previously been seen were recorded after 2 o'clock. Had the weather been more favorable, it seems reasonable to suppose that the list for the day would have been even larger.

It is worthy of note that during the first quarter of the trip the birds were not numerous, but that the number perceptibly increased as I approached the lake, while in the immediate vicinity of the lake many of the species literally swarmed. All of the song birds were in full song, and most of them still in companies. The Prairie Horned Larks were paired, and a nest of the Barred Owl was seen. The Crows were mostly in considerable companies, but a few pairs were noticed. Meadowlarks were mating, but none seemed to be occupying breeding grounds.

The list of species seen is a long one, but it is so interesting that I beg to give it here. The species that were recorded for the first time are indicated by a capital F, and those that were common by a capital C.

American Herring Gull, 7.
Redhead, F. 1.
Shoveller, F. 14.
Canada Goose, F. 1.
Killdeer, C.
Ruffed Grouse, 3.
Mourning Dove, 5.
Turkey Vulture, F. 1.
Red-tailed Hawk, F. 1.
Red-shouldered Hawk, 2.
Sparrow Hawk, 2.
Barred Owl, F. 1.
Short-eared Owl, F. 2.
Hairy Woodpecker, C.

Downy Woodpecker, C.
Red-bellied Woodpecker, 1.
Flicker, C.
Prairie Horned Lark, C.
Blue Jay, C.
Cowbird, F. 13.
Meadowlark, C.
Red-winged Blackbird, C.
Rusty Grackle, F. C.
Bronzed Grackle, C.
American Crow, C.
American Goldfinch, C.
Tree Sparrow, C.
Field Sparrow, F. 2.
Slate-colored Junco, C.
Song Sparrow, C.
Fox Sparrow, F. 5.
Cardinal, 6.
Towhee, F. 1.
Cedar Waxwing, 7.
Brown Creeper, F. 1.
White-breasted Nuthatch, C.
Tufted Titmouse, C.
Chickadee, C.
Robin, C.
Bluebird, C.

Total species, 40. Total New records, 13.

This list does not include ten species that were beyond question in the county on March 12. In spite of that this record is a phenomenal one in every way and will not soon be broken.

LYNDS JONES, *Oberlin, Ohio.*

PHILADELPHIA, PA.

Horizon for March 2, 1898. Snowing.
American Crow, 4.
Purple Grackle, 12.
Chipping Sparrow, 3.
Song Sparrow, 9.
Meadowlark, 2.
American Goldfinch, 1.
Field Sparrow, 1.
Total, 32.

Horizon for March 8, 1898. Clear.
American Crow, 9.
Purple Grackle, 120.
Junco, 57.
Meadowlark, 2.
American Goldfinch, 2.
Song Sparrow, 2.
Total, 192.

RUSSELL GRAY.

LOCAL NAMES.

For some time I have been jotting down the local names of our birds whenever opportunity afforded the means. I append a few examples from my own neighborhood. Some are in common use, others are seldom heard, but are nevertheless as deep rooted as the oldest scientific names used by our ornithologists, and perhaps much more so.

GREAT BLUE HERON.—"Crane," "Blue Crane," "Big Blue Crane," "Big Crane," "Big Blue Shitepoke," "Great Big Fly-up-the-creek," "Big Kingfisher," "Fish Crane," "Frog Eater."

COOPER'S HAWK.—"Chicken Hawk," "Pigeon Hawk," "Bird Hawk," "Long-tailedHawk," "Privateer." The latter a relic of the time when privateering was so popular along our coast. This Hawk, by its dash, quickness, and boldness well earning the title. The term is in quite common use.

YELLOW-BILLED CUCKOO.—"Great American Cuckoo," "Indian Hen," "Rainbird," "Rain Crow," "Cowbird," "Conk." The last from its cry.

WHIP-POOR-WILL.—"Whipper-will," "Whipper-ca-loo."

CARDINAL.—"Rainbird," "Cowbird," "Virginia Nightingale," "Redbird," "Red Jay," "Corn Cracker," "English Cockatoo." The last two probably so called from its powerful looking beak.

CHIPPING SPARROW.—"Chippy," "Chiprie," "Hairbird" (from its nest), "Chip Sparrow," "House Sparrow," "Bush Sparrow," "Honey Sucklebird." The latter from its frequent use of the woodbine—here called "honey suckle"—as a safe and convenient nesting place. "Tit" and "Tomtit."

MARYLAND YELLOW-THROAT.—"Muff Wren." The black hood about its head suggests the first, and its harsh wren-like cry the other part. A half wild and partly crazed dweller of a nearly swampy thicket took the trouble to hunt up and point out to me the above named Warbler as the original of the name.

FRANK L. BURNS, *Berwyn, Penna.*

GENERAL NOTES.

NOTES FROM WISCONSIN.—BALD EAGLE.—Saw an adult flying along the creek in Albion, Dane Co., November 19, 1897. Saw three young eagles by Lake Koshkonong, November 21, 1897. These birds come to the lake every winter to pick up what fish they can from the fishermen on the ice. They sometimes get so bold as to take the fish from close beside the fishermen.

ROUGH-LEGGED HAWK.—This hawk is with us all winter. Every slaughter house around here is headquarters for one of these hawks. January 26, 1898, I saw one which was in the black phase, being black except a very little on the underside of wing.

Fox Sparrow.—I found one among the pines in the nursery at Milton, December 12, 1897.

Redpoll.—December 26, 1897, I saw a flock of about 120 near Lake Koshkonong. There was not a single rosy-breasted one among them that I could find. I have not seen a rosy-breasted one this winter. Last winter I found one flock where eighteen out of thirty-three were rosy-breasted.

Junco.—There has been a flock of about thirty Juncos which have roosted among the pines in the cemetery in Albion all this winter.

Cedar Waxwing.—A flock of twenty-two lighted in a maple tree in Milton Junction, January 6, 1898.

G. M. Burdick, *Milton Junction, Wis.*

Notes from Philadelphia, Pa.—On February 12, I saw a Belted Kingfisher. This is a very unusual occurrence, as they are very rare in winter, although comparatively common in summer.

February 9. I saw a White-crowned Sparrow in a small swamp. It did not seem to be very lively, as it sat on one branch for fully five minutes.

The migrations opened here on February 12, with the arrival of a Robin; the only one seen so far this winter. On February 13, one Purple Grackle arrived and on the next day a flock of about forty was seen, and no more were noticed until the 24th They did not become common until March 2. On March 6, 7, and 8, 104, 107, and 120 respectively were noted.

February 26. Today I saw a Black-capped Chickadee dig an acorn out of a hole in a tree and taking it in his beak, bark up the tree, then wedge it in a crevice in the bark and hammer it with his bill. It worked loose so he took it higher and wedged it again. This he repeated several times until he finally got it open and ate it.

Russell Gray, *Philadelphia, Pa.*

Two Curious English Sparrows' Nests.—On March 14, while tearing down the nests which these pests have already begun to build, I found two nests *with the opening in the side*. They were composed of about half a peck of hay and feathers, and placed in the ivy flat against the wall, and well lined with feathers. One of the nests had two openings, one in each end. I have never seen any like these before.

Russell Gray, *Philadelphia, Pa.*

SHORT NOTES.

Mr. Arthur T. Wayne, Mt. Pleasant, S. C., writes: "Heard but a single Pine Linnet this year!" He also mentions finding a nest of the Bald Eagle containing two almost fresh eggs, on January 20. The nest was in an enormous dead pine tree, 101 feet and 8 inches high. The tree was struck by lightning last summer. His record of a Great Horned Owl's nest containing two young birds, one of them about ten days old, on January 22, is probably the earliest for that bird yet recorded. The nest was in the top of a 'green' pine about 90 feet from the ground, and contained, besides the two young birds, a large rat with its head eaten off.

Mr. G. M. Burdick writes that between March 9 and 14, Bluebird, Robin, Bronzed Grackle, Red-winged Blackbird and Meadowlark, arrived at Milton Junction, Wis.

Under date of March 12, Miss Caroline Mathews, Waterville, Me., writes: "We shall not have the birds with us very early this spring, as the snow is still deep." It was the same day that 40 species were recorded at Oberlin, Ohio, 13 of them new records for the year.

OUR COMMITTEES FOR 1898.

How many Final Report Special Bulletins shall we have this year? That entirely depends on the work of individual members. For several years we have been working upon the Warblers, the subject being divided into three heads. One of these has to do with the breeding birds only—Nesting—and is capable of development along lines of the greatest value, if each member will lend his earnest aid to the chairman, Mr. H. C. Higgins, Cincinnatus, N. Y. Surely each member can watch a nest of the Yellow Warbler from its beginning until the young have left. Many may be able to do the same with some one or more of the other more or less common species. Will not each one make an earnest effort to contribute to this report at the close of the nesting season of 1898? The information you will gain from such a study will be far greater than you may imagine.

The migrations of the Warblers are peculiarly interesting because of the uncertainty of their appearance during any season. In this subject lie many interesting problems of the influence of weather upon bird

movements. But aside from any such problems, it is in the migrating season that we must look out for the Warbler host if we are to find it at all, for the greater part of our species are strictly transients. Hence, a study of their migrations means acquaintance with a far greater number of them than are to be found in summer. Mr. J. E. Dickinson, Rockford, Ill., has charge of this work, and he will be glad to put you in the way of it.

When we study the songs of the Warblers we begin to get nearer to their inner life and to know something of the bird as a sentient being. This is an essential part of the life history, and one of the most interesting parts. Here, again, we must be on the lookout for them as they go to and fro on their migrations if we are to hear many of them singing. Aside from the sentiment of song there are some interesting problems which need working out, and with time and patience we can hope to do it. The diurnal as well as the seasonal period of song has never been carefully worked out for even the commonest of the group. Here is an open field. An attempted description of a song is always an aid to the memory, and may often result in valuable contributions; but at best it is difficult and unsatisfactory because our vocabulary is not suited to representation of bird songs, and our powers of imitation are too imperfect and feeble. But even here a great deal may be done by patience and appreciation.

We know what the food of the Warblers is in a general way, but many of the particulars are still hidden. I cannot advocate killing the birds for the purpose of learning what they eat, but if they must be killed for some other purpose it would be a shame not to examine the contents of the stomach and make a record of what is found. An accumulation of such records would be of great value in determining the food habits of our birds. If a bird must be killed its dead body should be made to tell as much of the history of that species as it is capable. But a study of the stomach contents will tell only a part of the story of the food habits, because the birds eat many things which leave no remains in the stomach. Then by carefully watching the birds in the field we may learn not a little about what they eat. The study of Food and Song is under the direction of Lynds Jones, Oberlin, Ohio. Any notes or suggestions will be thankfully received.

Mr. Frank L. Burns, Berwyn, Pa., is still studying the Flicker, and he will be glad to put you in the way of helping forward his report to completion. Write to him without delay.

The report upon the Swallows is nearing completion, and is only wait-

ing for more notes. Mr. Stephen J. Adams, Cornish, Maine, desires any and all notes from all sections of the country at once so that the work of compiling may begin. Any note you may have will be a welcome addition to his report.

I am glad to refer you to the announcement of the Committee on Geographical Distribution, which appears in this issue. Read it and act upon its suggestions.

LYNDS JONES, *Chairman of Work.*

COMMITTEE ON GEOGRAPHICAL DISTRIBUTION.

FURTHER MECHANICAL HELPS TO OBSERVATION.

Several of our members having taken so kindly to the suggestions made in BULLETIN No. 14 with reference to *daily horizons* and bird *censuses*, I venture to submit other ideas along the same line. By speaking of mechanical helps, I do not refer to instruments which observers may use, such as opera glasses, camera, etc., (purposely omitting the shot-gun), but rather to those schemes or methods of study which may fairly be called mechanical.

First in importance after those already discussed I should place the *annual horizon*, or local list for the year. This may be, if you please, a formal list, such as the U. S. Dept. of Agriculture provides for in its migration blanks, or it may simply be indicated by a series of consecutive numbers, running through your note-book. For my part, I employ the latter method, throwing a circle around each number; so as to make it stand out from the page, and catch the eye in hasty reference.

Always record first appearances, no matter what the season or what its possible bearing on migration. By so doing one gets into the way of expecting old bird friends, and refuses to be satisfied until he has seen them. So too, one gets the winter residents straightened out in his mind, and notes untimely appearances that would be overlooked by the man who is jotting down only migration records in the height of the season. Begin on the first day of January, if possible, and follow it through, according to opportunity, until the 31st day of December.

This annual horizon should have a definite local significance; that is, the limits of observation should be decided upon at the beginning of the year and adhered to throughout. Such a section as one expects to frequent the most will of course be chosen. Many valuable and instructive

lists have been taken in such circumscribed areas as a village garden or a water-works pond. A county, however, makes a natural and convenient division for those who find it possible to cover so much ground. Here at Oberlin we try to hold ourselves answerable for Lorain county, by making frequent excursions to the most favorable points.

As an example, I may cite my personal Lorain county horizon for the year 1897. By March 1st, I had recorded 28 species; by June 1st, 137 species; by Sept. 1st, only 139; and by Dec. 31st, 146 species.

Such annual local horizons are of course valuable for comparison year by year, but their chief value lies in the fact that they enlist and compel attentive observation. The obvious mechanical feature is a genuine stimulus to that which has value in itself.

For a similar reason, an enthusiastic observer will take delight in the growth of his *life-horizon*. This is, in short, a list of all the birds he knows in the field. It should include only those species which he has actually met and so can identify afield. Now, whereas the accumulation of such a list, if it were merely for the sake of numerical comparison with some rival observer would be as vulgar as a collection of tobacco tags, it may be, on the other hand, if rightly conceived, a source of legitimate satisfaction. To be able to add year by year to your list of bird friends is no mean ambition. It will incite the student to a careful scrutiny of his own surroundings and give zest as well to the vacation trip or the change of residence.

The pleasure of such a life-list grows with increasing knowledge. The new bird, that would be a perfect enigma to the novice, drops at once into its appropriate niche with the man who has a field acquaintance with its congeners. Of course, there is a limit to this sort of thing,—namely, when one knows them all But this day fortunately is far distant from most of us. Meanwhile, we suspect, the flavor of the "new bird" improves to the taste with his increasing rarity. The veteran ornithologist, Dr. Coues, says—and we can almost hear him sighing—"For myself the time is past, happily or not, when every bird was an agreeable surprise, for dew-drops do not last all day; but I have never yet walked in the woods without learning something pleasant that I did not know before. I should consider a bird new to science ample reward for a month's steady work; one bird new to a locality would repay a week's search; *a day is happily spent that shows me any bird that I never saw alive before.*" To take account of this last is the purpose of the *life-horizon*.

William L. Dawson, *Oberlin, Ohio.*

EDITORIAL.

A neat little pamphlet of 24 pages, containing the Constitution, By-laws and List of Members of the Cooper Ornithological Club of California, is at hand. This flourishing organization is doing a great service for the Ornithology of California. Its membership includes many prominent names.

It is the intention of the editor to increase the number of pages to 16 for each issue during 1898. Will not each member of the Chapter, and each reader of the BULLETIN lighten the work of the editor by sending notes or short articles for publication? There should never be a dearth of copy from which to make up each BULLETIN. Copies from your note-book, as you make the entry in the field, are what is wanted. Rare finds and phenomenal records are interesting and valuable, but do not forget that we are organized for the express purpose of studying the *life histories* of the birds. Remember also that there are now probably no complete life histories of even the commonest species written, or even known. Notes on the habits of the birds are always interesting and instructive. You who are in the heart of crowded cities may find the birds about you, and may derive genuine pleasure from them during the interim of business. Look for them and see if you don't find them.

Now that spring has come again we should remember Bird Day. There could hardly be a more effective way of bringing the claims of the birds before the people than this, of making much of a Bird Day by the school children. The better we become acquainted with the birds the more we recognize how necessary they are in the economy of Nature. Among the school children Bird Day might well be the beginning of personal acquaintance with the live birds, accomplished by short excursions into the fields and woods. It might be objected that the teacher is not well enough acquainted with the birds to teach the children. I doubt very much if there is any place in this country where some one may not be found who possesses familiarity enough with the birds to teach the children the commoner kinds, and who would delight in doing that service for the birds. Acquaintance with the food habits of many of the birds may be gained from the publications of our Agricultural Department, which it will be glad to supply to any applicant. In places favored with a museum, the children will be able to learn a great deal about the appearance of the birds from the mounted specimens. To

older persons Bird Day might well be the occasion of organizing Audubon Societies. Among other things the game laws of the state might be inquired into, with the purpose of making them more generally known to the public at large, and of securing such revision of them as might seem advisable where they are too lax. Let us all make Bird Day mean something to us this year.

Do we realize that the game laws of many of our states are dictated by sportsmen in their interest, and too often without any regard for the proper protection of the animals? This ought not so to be. As naturalists we should combine our forces and see to it that laws are enacted which shall afford adequate protection to the animals. Let this matter rest upon the conscience of each one until the desired object is accomplished. Delay means the useless death of many animals.

INFORMATION WANTED.

As to the arrival of Killdeer, Meadowlark, Bronzed Grackle, Robin and Bluebird for 1898. In order to make this record of practical value, every member of the Chapter and every reader of this notice should report. Please give the exact date on which each species was first seen, and when next seen, and when it became common, if possible. The date of first appearance is the most important for this comparison. Please send the records without delay to Lynds Jones, Oberlin, Ohio. A postal card will hold them. If any of these species wintered with you, please so state. In such a case the first *migrants* would constitute the first records.

ELECTION OF NEW MEMBERS.

For Active Membership.—Russell Gray, Philadelphia, Pa.

Admitted to Associate Membership.—Miss Ednah Knox, Sheffield, Ill.

PUBLICATIONS RECEIVED.

Contributions to Philippine Ornithology, by Dean C. Worcester, A. B., and Frank S. Bourns, M. D. From the Proceedings of the U. S. National Museum, Vol. XX, pages 549-625, (with plates LV-LXI). These

Contributions swell the list of Philippine birds to 526 species positively known to occur on these interesting islands, exclusive of 67 about whose occurrence there may be some doubt. The paper is in two parts, part I dealing with the list of species and their distribution in the group, part II discussing the many interesting problems presented by so varied a group of islands in the midst of the ocean. The paper is a contribution not only to Philippine Ornithology, but to the general subject of Ornithology as well.

Birds, Vol. III, Nos. 2 and 3. February and March, 1898.

Book Reviews, Vol. V, Nos. 8 and 9. February and March, 1898.

Bulletins 88, 89, 90. Alabama Agricultural Experiment Station.

Bulletin of the Michigan Ornithological Club. Vol. II, No. 1. January, 1898.

Bulletin 87. Ohio Agricultural Experiment Station.

Contributions to Western Botany, No. VIII. February 21, 1898.

Forest and Stream, Vol. L, No. 1. January, 1898.

The Iowa Ornithologist. Vol. IV, No. 1. January, 1898.

The Journal of Applied Microscopy. Vol. I, No. 2. February, 1898.

Museum. Vol. IV, No. 4. February, 1898.

The Osprey. Vol. II, Nos. 5, 6-7. January, February-March, 1898.

Stories from Nature. Vol. I, Nos. 8, 9. January and February, 1898.

WANTED! The following numbers of *The Osprey:* October, and December, 1896, February, 1897. Will exchange other publications, or pay cash. Address, LYNDS JONES, *Oberlin, Ohio.*

WANTED! I will pay cash for the following publications: *Curlew*, any and all numbers. *Ornithologists' and Oologists' Semi-Annual*, Vol. I, No. 1, Vol. II, No. 1. BULLETIN (new series) Nos. 1, 2, 3, 4. *North American Fauna No. 7.* Copies must be unbound and in good condition. Address, LYNDS JONES, *Oberlin, Ohio.*

CENTRAL PARK
NEW YORK

THE PARULA WARBLER AND ITS NEST.

Walking through the woods one day, I was surprised by a bird dropping lightly to the ground at my feet, and, (as I stopped instantly) seeing it calmly go about picking up tiny bits as if I were not there. It was a mite of a bird, and beautifully marked with various colors. After a few moments it flew on through the woods and I said to myself, "some one is going to house-keeping and I wonder who?"

I came home and went to my books, and yes, it was as I thought and hoped, the Parula Warbler. I had seen mounted specimens and pictures, but this was my first acquaintance with the bird

The next day I came upon the same bird on a bush and as I looked at it, it flew up into a tree close by, and into a dark spot among the foliage, where I could see that it was jerking and twitching things about, and then away. Still watching and peeping I finally found an opening which showed me a nest, and then the bird came back with more material and renewed its work. You may know that this was highly interesting since the books say it builds its nest in the long tufts of gray lichens, (*Usnea barbata*), and this was not in long moss, but in the boughs of a hemlock tree! A beech had been blown over and leaned against this hemlock bending some of the branches until they were quite perpendicular, and very thick, so of course it made a place more like the moss which it is said to use. I visited this nest often, but it was so high up—about forty-five feet—that I could see nothing but the birds leaving or approaching it, and that it was a pendent nest, like that of the oriole, only smaller. I longed to get that nest down after Parula was done with it, but had not succeeded in doing so, when a storm in mid-winter carried it off. The next spring the Parulas were often seen about the bird's bathing-place, and were like most of the birds, very tame. Many times they shook off the water and preened their feathers on low branches near me, and glanced down at me most sociably. I had good opportunities for seeing their pretty markings, the bright yellow of chin and throat, melting into the rich orange-bronze across the breast, this changing suddenly to the white of underparts. The blue of upper parts with the bronze across the back and the two white wing-bars—instead of one as many books say. Then some dashes of white on the tail, and you have as dainty a bird as can be imagined.

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Once I saw on the black mud which the overflow from the spring keeps wet, one of these tiny birds drinking from a dot of a lake, and it made me think of a delicate lace handkerchief dropped on a dusty floor, it was so small and frail and beautiful, and the black earth seemed so unfit for it to touch. I did not find the nest that year. The next spring I was puzzled for a long time by two bird songs which I could not place. I always heard them from the higher trees, and although I could get glimpses of the birds who sang them, they would not come down and tell me their names. The voice of one bird was slightly shrill, and the song went like this "- - - - - / - - - - - /" a trill followed by one longer accented note. The other was much sweeter and more varied, "- - - - /// \" represents the changes in the notes as well as I can give them. I was quite convinced that there were two different birds, but found at last that it was just one, and that, the Parula warbler. Besides these two songs there is the common call note "chip, chip,"

Then one day when I was out a bird flashed by me and up into a tree close by. I followed its flight and there was again the Parula's nest and again in a hemlock! About twenty-five feet high, in the lowest branch, and where the green was thickest and pendent, this time without any outside help to make them so, it just grew that way, and Madam Parula had looked and seen that it was just the place for a nest. The tree stood just outside my garden fence and about a rod from the tree that held the nest two years ago. The nest was not quite finished as the birds made many trips to and from it, and jerked and twitched things about whenever they were in it. After a week, Madam was evidently sitting, and several times while I watched, the male flew to the tree singing as he reached it; and almost instantly the female came out and flew off. She was gone perhaps five minutes and sometimes the male dived down into that dark spot in the branches and stayed until she came back, when he flew out and she in, without apparently seeing each other, though passing just above the nest, just pretending I suppose. At other times the male perched on a twig close to the nest and repeated his song, until his mate came back, when he flew off and could be heard singing about the trees all day.

Then for a week I was unable to visit the nest, and when I did it was deserted, but since I heard the song for the rest of the season I concluded the birds were safely hatched and flown in that short time. In the fall my husband climbed the tree and brought me the bough with the nest, and at last I could see how it was made. Very frail and the wall so thin one side was formed by only three or four bare twigs of hemlock,

but doubtless these bore their leaves when the nest was occupied and that would complete the wall on that side. Fine, thread-like green lichens and slender black roots compose the nest, and the latter are used to bind the hemlock twigs into the framework and support of the nest. One twig is bent up around the bottom and bound firmly there. The nest measures two inches deep, two and a half inches across one way and one and a half the other, being much flattened instead of round. The black roots look like those of the fern "Dicksonia" which grows plentifully here.

Mrs. T. D. Dershimer, *Square Top, Wyoming Co., Pa.*

ALL DAY WITH THE BIRDS.

Tuesday, May 17, was the day agreed upon by the editor and myself in which to take a representative horizon of Lorain County birds. In order that it should be a fair test of the possibilities of a single day, we arranged to spend as much time in the field as possible, and at the same time cover a variety of bird haunts. With this in mind we began at 3:00 A. M., and devoted the best early morning hours to a favorite piece of woodland and thicket two miles out of town. There was a considerable frost on the ground, which no doubt dissuaded a number of birds from leaving us the night before, but the day became bright and warm and still—in fact an ideal bird day.

The chorus was opened at 3:15, while we were still in town, by the Chipping Sparrow, and he was joined within a minute by Robins and Mourning Doves. Between four and five hours were spent in the woods, which, with intervening fields, resulted in a horizon of seventy-one species by 8:00 A. M. This included several rare finds.

We chased a shy and very suspicious looking sparrow for a hundred yards or more along a shady creek in the heart of the woods. Finally when we had him pushed almost to the edge, he graciously treed at about twenty feet high, for a half a minute. How eagerly we scanned him!—altho at such long range!—but there could be no doubt! It was Lincoln's Sparrow. Later in the day, while we were poking in a small tangle near the lake, we came upon this bird again. Here too he was skulking in a creek bottom, but by walking one on each side of the creek, we got a double cinch on him. First, Mr. Jones drove him (on the ground) to the water's edge, and from across the stream I noted his head stripes, his pale streaked breast and his demure airs. Then I retired, while Mr.

Jones put him across the creek, where I "held him" for Jones to study. During this time he favored us with a few delicate snatches of a sweet but very weak song. Taken altogether it is scarcely any wonder that we had not found this bird before.

In the woods also I almost stumbled on a beautiful Mourning Warbler. So tenaciously did it cling to the brush heap, that Mr. Jones afterward drove it up within four feet of me, where it allowed a most minute inspection. It's snapping black eyes vied with the shining jet of its breast, and we let it go for a "little exquisite." Another rarity was the Gray-cheeked Thrush, which we came upon in addition to the three other species.

After a half hour lost at breakfast, Mr. Jones and I boarded the electric cars for Lorain, on Lake Erie, intending to search the shore for five miles; then after exploring a swamp there to tramp back to Oberlin via Beaver Creek bottom. Arrived at Lorain, we saw from the pier Common Terns, which are usually anything but common here. Purple Martins swarmed about the docks and channels, and with them were mingled a few Tree Swallows. Also a very ancient and tattered Bald Eagle soared slowly overhead. When we called the attention of an intelligent-looking bystander to the fact, he exclaimed excitedly, "Is that so? Why, somebody ought to get after him." That's it! That is the average American's one idea of the eagle. "Kill it." Let us be thankful that there are some of us who have been spared that ignominy.

Shore birds were conspicuously absent, but in the swampy sections arrivals dropped in on us pretty fast. As the "90" mark was passed our spirits, already high, rose perceptibly. When it began to look as if we would score a hundred, the editor became visibly excited, while the writer, who is somewhat younger and more "flighty," gave vent to a few uncontrollable whoops. However in our wanderings we came across a feathered brother who was able to adequately express our sentiments. It was the American Bittern; and I tell you candidly, gentle reader, that of all uncanny noises the noise he makes is the most uncanniest of all. Take a jug the size of a hogshead, and while full of air, duck it mouth down in the pond. Then let the air escape in great gurgles, say a cask-ful at a time, and you get but a faint idea of the terrifying, earth shaking power of the well lubricated "Thunder-pump."

The return was made along a creek bottom of varied character. A pair of the rare Rough-winged Swallows were sighted in a small shale-walled gorge. Several strays were brought into line, and the list appropriately closed at 7:15 P. M. by the appearance of the first Nighthawk.

We arrived home at 8:30 P. M., having spent seventeen and a half hours with the birds, and having secured a horizon of 102 species.

In glancing over such a list it is instructive to note the deficiencies, as well as the names present. In the first place it was not a warbler day. Altho eighteen species were found, it was only by hard work, for the warblers were scanty and scattered. Almost any day of the week previous must invariably have yielded more species and many times more individuals. Again, certain other species are bound to have been in the county on that day, but were not seen simply because of the necessary limitations of time and strength. Among such must be reckoned at least the Turkey Vulture, Broad-winged Hawk, Red-tailed Hawk, Sharp-shinned Hawk, Cooper's Hawk, Screech Owl, Barred Owl, Red-bellied Woodpecker, Yellow-bellied Sapsucker, Whippoorwill, Cedar-Bird, Bay-breasted Warbler and Yellow-breasted Chat.

We don't want to boast, but if any of the brethren encounter better luck within the limits of a single day and county, we want to hear from them in future numbers of the WILSON BULLETIN. The following is the horizon complete :

1. American Herring Gull.
2. Common Tern.
3. American Bittern.
4. Great Blue Heron.
5. Green Heron.
6. Virginia Rail.
7. Sora.
8. American Woodcock.
9. Solitary Sandpiper.
10. Bartramian Sandpiper.
11. Spotted Sandpiper.
12. Killdeer.
13. Bob-white.
14. Mourning Dove.
15. Red-shouldered Hawk.
16. Bald Eagle.
17. Sparrow Hawk.
18. Belted Kingfisher.
19. Hairy Woodpecker.
20. Downy Woodpecker.
21. Red-headed Woodpecker.
22. Flicker.
23. Nighthawk.
24. Chimney Swift.
25. Ruby-throated Hummingbird.
26. Kingbird.
27. Crested Flycatcher.
28. Phoebe.
29. Wood Pewee.
30. Green-crested Flycatcher.
31. Alder Flycatcher.
32. Least Flycatcher.
33. Prairie Horned Lark.
34. Blue Jay.
35. Crow.
36. Bobolink.
37. Cowbird.
38. Red-winged Blackbird.
39. Meadowlark.
40. Orchard Oriole.
41. Baltimore Oriole.
42. Bronzed Grackle.
43. Goldfinch.
44. Vesper Sparrow.

45. Grasshopper Sparrow.
46. White-crowned Sparrow.
47. White-throated Sparrow.
48. Chipping Sparrow.
49. Field Sparrow.
50. Song Sparrow.
51. Lincoln's Sparrow.
52. Swamp Sparrow.
53. Towhee.
54. Cardinal.
55. Rose-breasted Grosbeak.
56. Indigo Bunting.
57. Scarlet Tanager.
58. Purple Martin.
59. Cliff Swallow.
60. Barn Swallow.
61. Tree Swallow.
62. Bank Swallow.
63. Rough-winged Swallow.
64. Loggerhead Shrike.
65. Red-eyed Vireo.
66. Warbling Vireo.
67. Blue-headed Vireo.
68. Black-and-white Warbler.
69. Blue-winged Warbler.
70. Nashville Warbler.
71. Tennessee Warbler.
72. Yellow Warbler.
73. Black-throated BlueWarbler.
74. Magnolia Warbler.
75. Cerulean Warbler.
76. Blackburnian Warbler.
77. Black-thro't'dGreenWarbler.
78. Palm Warbler.
79. Oven-bird.
80. Water-thrush.
81. Louisiana Water-thrush.
82. Mourning Warbler.
83. Maryland Yellow-throat.
84. Wilson's Warbler.
85. Canadian Warbler.
86. Redstart.
87. American Pipit.
88. Catbird.
89. Brown Thrasher.
90. House Wren.
91. Winter Wren.
92. Long-billed Marsh Wren.
93. White-breasted Nuthatch.
94. Tufted Titmouse.
95. Chickadee.
96. Blue-gray Gnatcatcher.
97. Wood Thrush.
98. Wilson's Thrush.
99. Gray-cheeked Thrush.
100. Olive-backed Thrush.
101. American Robin.
102. Bluebird.

W. L. Dawson, *Oberlin, Ohio.*

BIRD CENSO-HORIZONS.

Parvenir, New Mexico, altitude 7,500 feet, March 27th, 1898. The following were observed in a three hour's walk, from nine to twelve A. M., taking in the Gallivas river canon, mountains and mesas.

Long-crested Jay, 31.
Woodhouse's Jay, 2.
American Dipper, 11.
Red-backed Junco, 34.
Red-shafted Flicker, 1.
Cabani's Woodpecker, 2.

Pigmy Nuthatch, 23.
Slender-billed Nuthatch, 2.
Western Robin, 8.
Canon Towhee, 5.
Western Goshawk, 1.
Sparrow Hawk, 1.
American Magpie, 9.
Mountain Chickadee, 7.
Golden Eagle, 2.
Road Runner, 1.
Mourning Dove, 17.
Desert Horned Lark, 39.

The day was a perfect one. No clouds, hot sun, thermometer 52° in the shade, and a very light snow had fallen the previous night, which had entirely disappeared, except slight patches on the shady side of the mountains along the canon.

WALTON I. MITCHELL, *Parvenir, San Miguel Co., New Mexico.*

PHILADELPHIA, PA.—This censo-horizon was taken during a two hours tramp over the Delaware marshes near Philadelphia, February 26, 1898. The day was clear, with a comparatively strong breeze, the temperature ranging from 40° to 60°.

Duck, 12. A flock swimming in the river too far out too determine the kind.

Marsh Hawk, 1. Solitary.

Red-tailed Hawk, 3. Together.
Red-shouldered Hawk, 1.
Am. Rough-legged Hawk, 3

All these were flying about over the same meadow. These meadows are literally alive with mice, which probably accounts for the number of hawks, which are abundant there in winter.

Short-eared Owl, 2. Pair.
Flicker, 3. Two together, one solitary.
American Crow, 12. In pairs mostly.
Red-winged Blackbird, 1.
Meadowlark, 3. Solitary,
Purple Grackle, 3. Flock.
Vesper Sparrow, 3. Flock.
Savannah Sparrows, 6 small flocks of 2 or 3.
White-throated Sparrow, 2.
Slate-colored Junco, 3.
Song Sparrow, 50. Small flocks.
Swamp Sparrow, 1, with Junco.
Titlark, 100. Flock.
Carolina Wren, 1.
Robin, 4.

GENERAL NOTES.

NOTES FROM PHILADELPHIA.—Mr. Davie, in his "Nests and Eggs" says concerning the Robin, that the eggs are "usually four, rarely five." This spring there were under my observation, near home, ten nests of the Robin. Of these, two never contained eggs ; of the other eight, two contained when the set was completed, two eggs ; three had three eggs ; three four eggs and one, five. Therefore it would seem to me that it should be said that the number of eggs in a complete set is from two to five. The nests were all, except the one of five eggs, undisturbed and the broods reared. I am also positive that the nests were not disturbed in any way and it is too early for second sets.

I should like to withdraw a statement that I made in the last number of the BULLETIN about the curious Sparrow's nest. Since then I have found that all the newly built nests have the hole in the side and not the top. There are some thirty or forty nests about the home and are all, without exception, built in this manner.

While on a collecting trip to the Delaware River marshes, on Feb. 26, I shot a Fish Crow, *C. ossifragus*, which had a white feather in the greater coverts of each wing.

On May 29, a Wilson's Phalarope was presented to the Delaware Valley Ornithological Club. It was shot on the marshes back of Ocean City. This is the only specimen of this bird that has ever been shot by any member of the club.

APPROPRIATION OF THE YELLOW-BILLED MAGPIE'S NEST BY THE DESERT SPARROW HAWK.—In San Benito County, California, the Desert Sparrow Hawk, *Falco sparverius deserticolus*, has adopted a mode of nesting which differs somewhat from the traditional habit of taking up an abode in the cavity of some tree. Here a majority of these little Falcons appropriate old nests of the Yellow-billed Magpie, and it is quite probable that they take forcible possession of some of the nests after they have been repaired by the Magpies, as many of the nests I have seen are lined with roots and mud, which was undoubtedly the work of the latter birds. On April 10, on visiting a live oak tree on a little hillside, I saw a new Magpie's nest, from which the bird flew in its quiet, undulating fashion, when I was half way up the tree The nest was round in shape and one and one-half feet in diameter, with an entrance half way up. The interior of the nest was six inches across and deeply cupped, being about five inches deep, and lined neatly with roots. The nest held five

handsome fresh eggs. In the same tree I noticed another nest, from which flew a Sparrow Hawk from her set of five eggs. The nest was a Magpie's in good condition and about the size of the one mentioned. Both nests were about forty feet from the ground. On May 7 another visit to the tree found that the Sparrow Hawk had laid again, this time selecting the other nest, perhaps with hopes of better success in her undertaking. The eggs were well commenced in incubation, and the nest held also one egg of the Yellow-billed Magpie. This I accounted for on the supposition that when I took the five eggs of the Magpie from this nest, the set was not complete and the bird returned and deposited the last egg and deserted the nest, which was subsequently used by the Sparrow Hawks. Another nest of Sparrow Hawks was found on this date (May 7) containing four small young, which were covered with white down. The Magpies and Sparrow Hawks seem to each rear their broods peaceably, neither molesting the other.

CHESTER BARLOW, *Santa Clara, Calif.*

LORAIN COUNTY, OHIO, NOTES.—At the close of every season of migration it is interesting and instructive to run over the note-book with a view to counting up the strangers that have been met, and the hitherto quiet species which have performed for our benefit. The list of strangers, which should include such as I have never seen in this county before, tho they may have been seen elsewhere previously, is more than usually long this time, I am happy to say. I will give them in the order in which they were recorded, with the dates for each.

AMERICAN ROUGH-LEGGED HAWK: January 4, one flying over Chance Creek at Vermillion River; May 9, one flying over a field half a mile south of Oberlin.

GOLDEN EAGLE: February 12, one on the ice on the lake shore near Lorain, Ohio.

RED-HEADED DUCK: March 12, one on the lake near Oak Point.

SHOVELLER: March 12, fourteen on the lake near Oak Point.

SHORT-EARED OWL: March 12, two on the lake shore near Oak Point.

PINE WARBLER: April 29, one singing in the woods at Oak Point. In full plumage and but little wary. This is the first one I have ever seen alive.

BEWICK'S WREN: May 7, one in the woods two miles south of Oberlin. The first one I have ever seen.

GREATER YELLOW-LEGS: May 11, one at the brick-yard ponds, making a great outcry.

Parula Warbler : May 10, two on the college campus ; and May 16, again on the campus.

Lincoln's Sparrow : May 12, one in Morgan's woods. A number singing at the lake shore near Oak Point, May 17.

Black Tern : May 15, one on the water-works reservoir. Several had been seen by the engineer a few days previously.

Gray-cheeked Thrush : May 17, one in the woods two miles south of Oberlin.

Least Bittern : May 28, two in the marshes at Oak Point. This is the first ever seen alive by me.

Thus three species have been added to my list of acquaintances without going beyond the county limits. One of them, the Least Bittern, has hitherto been overlooked thro lack of opportunity to search for him. One, Bewick's Wren, is new to the county list.

In this connection it is worth notice that the Bank and Rough-winged Swallows can now be distinguished in the field without a gun. The gray underparts of the Rough-wing are noticeably different from the white banded underparts of the Bank. The more deliberate movements and slightly larger size of the Rough-wing are also good field characteristics.

In addition to those already mentioned, the American Bittern and Black and White Warbler have been heard in song for the first time. It is also cause for congratulation that the songs of the two Cuckoos, and of Wilson's and Olive-backed Thrushes can now be distinguished with certainty.

Everything considered, the season just now closing has been the most profitable one since my list of acquaintances passed the hundred mark, and all of the work has been done without recourse to the shot-gun. Try the field-glass. It pays !

SWALLOW INVESTIGATIONS.

At the request of several members we have decided to continue the Swallow study another year, and trust that this may give all a timely notice that they may be prepared to help us out with copious notes at the close of the season. For the benefit of those who have not already contributed I would say that I desire notes particularly in regard to distribution, migration, nesting, food, and feeding habits, and any other matter you may think of interest.

I have already a large stock of notes, embracing nearly every state, showing the distribution of the species. Still there is much lacking to

make a definite map of the range of each species as I have planned to do. It is possible we may extend the range of some species beyond the limits now established. I particularly want Northern Canada notes. Copies of published lists may be of great use. Included with this part I have some very interesting migration notes. From these I am almost ready to say that the birds come north in a number of well defined lines, branching out from these as the bulk pass on. Thus we find on certain lines the migrations almost in swarms, and at places on the same latitude only what are resident and these a few days behind the firsts at the former places. I need exhaustive notes to confirm my theory.

It is very difficult to determine the nature of the food taken from the minuteness of the particles. No one can doubt but they take enormous numbers of insects, but whether injurious or beneficial, it is the purpose of this investigation to determine. Nearly, if not quite all are taken on the wing. I have determined that the Barn Swallow takes enormous quantities of apple maggot-flies, a fact that will recommend them to the orchardists. I would like to enlist a good entomologist to help me out with this portion of the work. Who will be the first to offer his or her services in the cause of science ?

Everyone should provide boxes for the Martins and Tree Swallows. For the former the concensus of opinion seems to be in favor of single room houses, at least eight inches square and six or seven in height, with a two-inch entrance hole in front on a level with the floor. A porch or stool should be placed in front, say three inches wide. The box to be placed on a pole eighteen or twenty-feet high. Some have large colonies in pretentious houses of several rooms. The Martins are quite fastidious in their tastes, preferring a well-made and painted box to a shabby one. Not so the swallow. They care little what the style be so long as it is sufficiently tight to exclude the wet. Rooms for these need be no more than four by six and four or five inches high and the pole ten to fifteen feet high. English Sparrows and the House Wren are the worst enemy they have, and nothing will hold them in check except poison, or a shot-gun in the hands of a skilled gunner. No poultry yard should be without a colony of Martins if possible to get them, as no hawk will come the second time into the locality where they are nesting

In conclusion I would thank those who have so kindly remembered me with notes, and trust they as well as others will keep their eyes open this season to the end that they may be one of a large throng to assist in the preparation of the life history of one the most interesting families of birds.

STEPHEN J. ADAMS, *Cornish, Me.*

THE FLICKER REPORT.

Chairman Burns writes that he is in need of material for the "Flicker Report." Notes on identification and measurements of eggs are especially lacking. It ought to be possible for many members to make observations this spring; for instance, as to choice of nesting hole above the ground, manner of excavation, etc. There are many interesting things to be seen if one has the time and patience to watch the work of excavation regularly for a few hours every day, from under cover. The time of incubation, appearance of young when hatched, and the general life history of the Flicker furnish a fine field for original investigation of the highest grade. Careful study of the habits of one bird offers the best chance of discovering something really new to ornithological science.

R. M. STRONG, *President.*

INFORMATION WANTED.

Responses to the call for 1898 migration records for Kildeer, Meadowlark, Bronzed Grackle, Robin and Bluebird have been numerous and gratifying, but a fuller report is desired before publishing the records. Will not *all* who have not already sent their records do so at once? Address Lynds Jones, Oberlin, Ohio.

EDITORIAL.

There is now before us a pamphlet entitled, *The Destruction of Our Birds and Mammals*, by William T. Hornaday. Extracted from the report of the New York Zoological Society. March 15, 1898.

The appearance of this pamphlet, at a time when interest in nature study, and particularly in birds, is becoming so widespread, is cause for congratulation. The unimpeachable character of the author and the reliable sources of his information make us feel that the conclusions reached are absolutely accurate. No doubt many of us have realized in a general way, and with hardly any definite feeling about it, that the birds and mammals are really becoming fewer year by year. Those who may not have remained in one place or section of the country for more than a few years at a time probably attribute the greater scarcity to the different region, while others have given it no other attention

than "It was not so when I was young." But here we have in one brief review the opinions of one hundred and ninety persons qualified to give accurate information in regard to this decrease. We are therefore without further excuse for ignorance of the facts.

The "destructive agencies now in operation," according to this report, are eighteen in number, half of which stand out prominently as menacing factors. They are: Sportsmen, and so-called sportsmen; boys who shoot: market hunters and "pot-hunters;" "shooters generally;" plume hunters, and milliners' hunters; clearing off timber; development of towns and cities; Italians, and others, who devour song birds. Other agencies comprise so small a proportion of the whole that they scarcely need mention here

While this report shows that the average decrease in the bird and mammal fauna of the whole country is forty-six per cent. for the last fifteen years, it also tells us that 154 species, including the *Gallinae*, *Columbae*, *Limicolae Paludicolae*, *Herodiones* and *Anseres*, are rapidly becoming extinct. These comprise the so-called game birds and plumage birds. If the slaughter could be confined to these even, the problem of adequate protection might be fairly easily solved ; but as these begin to disappear the other birds, particularly the song birds, because they are so easily secured, are set upon and destroyed

The problem, then, becomes one for universal protection for the birds at least. It is a problem not alone to be grappled with by the scientist and the legislator, but by every patriotic citizen of our country, because the destruction of the birds, which, at the present rate will be complete in the next fifteen years, touches every one in every walk of life. The utility of the birds is universally accredited and need not be mentioned here. The question is, what are we going to do about it? What is the attitude our Chapter should take in view of these facts presented by Mr. Hornaday? This is a vital question to us, because we are acknowledged students of the birds. Shall we not have an universal expression of opinion before the next issue of the BULLETIN? Let the question be, What shall we do as a Chapter? If you have no special thots on the subject, or no special reply to make, will you not state as briefly as you please how you stand with reference to the question? Let us not delay.

CHANGES OF ADDRESS.

Mr. Arthur H. W. Norton changes his address to Waring, Kendall County, Texas.

Mr. Walton I. Mitchell desires his address changed to El Parvenir, New Mexico.

A CORRECTION.

Editor of The Wilson Bulletin:

Dear Sir:— Please make the following corrections in my note on page 8 of Bulletin No. 8: For Water Thrush (*Seiurus noveboracensis*) read Grinell's Water Thrush (*s. n. notabilis*). A careful study of the specimen convinces me of the error. Yours truly,

Sidney S. Wilson.

St. Joseph, Mo.

ERRATA.

In Bulletin 19, p. 25, line 10, for Conk read Couk.
Line 16, for Chiprie read Chipnie.
Line 23, for nearly read nearby.

PUBLICATIONS RECEIVED.

Gleanings from Nature, No. 1. *Oological Abnormalities*. By J. Warren Jacobs. This is the first of "A series of pamphlets based chiefly on the author's research in ornithology and oology and published from time to time as accumulating material and data permits." In the preparation of this pamphlet "Over one hundred sets of eggs [110], each containing one or more abnormal specinens, have been bro't together along with the copious notes appertaining thereto. Care has been taken to incorporate in the paper only such notes as have been properly authenticated and are based wholly on adnormal sets in the author's possession."

In the first sixteen pages of this pamphlet the author presents in tabulated form both the average size of a number of normal eggs and the actual measurements of abnormal ones; and discusses briefly some of the reasons for the production of abnormalities in "Size," "Color," "Contour." In the remaining twenty pages the 110 sets in which abnormal specimens are found are carefully described, and the abnormal features are made to at once appeal to the eye by being set in italics.

The four photo-engravings, illustrating these abnormalities are of great value in showing the variations in size and shape, but of necessity are less useful with coloration.

The subject of Abnormalities is one which may well arrest our attention, and the difficulties which it presents serve only to spur us onward in the research. The task which Mr. Jacobs set himself was no easy one, and he has our thanks for this presentation of the facts gathered after much time and labor.

Manipulation of the Microscope. By Edward Bausch. Third Edition. This little volume of 200 pages and 47 figures in the text fills a gap in microscopical literature. Its purpose is to acquaint the possessor of a microscope, whether simple or compound, with that manipulation of his instrument which will produce the best results. The language is simple and the style clear, enabling anyone who is willing to give attention to the subject to understand fully the tecnique of microcopical work. The author, Mr. Edward Bausch, being a member of one of the largest manufacturing firms of microscopes and their accessories in the country, is especially fitted to undertake the preparation of a work of this nature. This little book will be found invaluable to the beginner in the use of the compound microscope.

The Tongues of Birds. By Frederic A. Lucas, Curator of Comparative Anatomy, U. S. National Museum. From the Report of the U. S. National Museum for 1895, pages 1001–1019, with two plates, and thirteen figures in the text. An interesting and valuable treatise, discussing the differences in tongues, the reasons for the differences and the value of the tongue in determining relationships.

Taxidermal Methods in the Leyden Museum, Holland. By R. W. Shufeldt, Associate in Zoology, U. S. National Museum. From the Report of the U. S. National Museum for 1895, pages 1031–1037.

Ohio Butterflies. By James S. Hine. A list of 93 diurnal Lepidoptera or butterflies known to occur within the state of Ohio, with notes upon many species, and many references to literature.

American Monthly Microscopical Journal, Vol. XIX, No. 4, April, 1898.

Annual Report of the State Botanist of the State of New York, 1897.

Birds. Vol. III, Nos. 4 and 5, April and May, 1898.

Book Reviews. Vol. V, No. 10, Vol. VI, No. 1, April and May, 1898.

Bulletin No. 44. Birds of Colorado. Colorado Agricultural Experiment Station. March, 1898.

Bulletins 44 and 45, Florida Agricultural Experiment Station, January and March, 1896.

Bulletin of Michigan Ornithological Club, Vol. II, Nos. 1 and 2, January and April, 1898.

Bulletins 34, 35, 36, Nevada Agricultural Experiment Station.

Bulletins 84, 90, 91, Ohio Agricultural Experiment Station.

Fern Bulletin, Vol. VI, No. 2, April 1898.

Forest and Stream, Vol. L, No. 13 March 26. 1898.

Iowa Ornithologist, Vol. 4, No. 2, April, 1898.

Journal of Applied Microscopy, Vol. I, Nos. 4 and 5, April and May, 1898.

Lakeside Magazine, Vol. I, No. 9, April, 1898.

Mineral Collector, Vol. V, No. 3, May, 1898.

Museum, Vol. IV, Nos. 5, 6, 7, March, April, May, 1898.

Osprey, Vol. II, No. 8, April, 1898.

Recreation, Vol. VIII, No. 3, March, 1898.

Stories from Nature, Vol. 1, No. 10-11, March-April, 1898.

WANTED! The following numbers of *The Osprey:* October, and December, 1896, February, 1897. Will exchange other publications, or pay cash. Address, LYNDS JONES, *Oberlin, Ohio.*

WANTED! I will pay cash for the following publications: *Curlew*, any and all numbers. *Ornithologists' and Oologists', Semi-Annual*, Vol. I, No. 1, Vol. II, No. 1. BULLETIN (new series) Nos. 1, 2, 3, 4. Copies must be unbound and in good condition. Address, LYNDS JONES, *Oberlin, Ohio.*

CERTAIN BIRDS ON THE INCREASE.

In the face of the alarm being created—and justly—by the appearance of Mr. Hornaday's pamphlet*, it is gratifying to be able to report any increase among desirable species. A comparison of this season's notes with those of former years undoubtedly goes to prove that several of the brighter plumaged birds are on the increase in this locality. On the more sober plumaged rarities, however, it is unsafe for a young ornithologist to pass judgement. This because a new bird once learned suddenly appears to the observer as plentiful, whereas it may have simply passed unnoticed before, in quite as large numbers. But of the increase in the six species following, there can be little doubt.

Baltimore Oriole.—Everybody, rustic and villager alike, is remarking the abundance of the Oriole this year. In the spring anyone passing along one of the ridge roads of the county would scarcely pass out of earshot of an Oriole. This year represents a notable gain over last, but these birds have not been properly "rare" during the last seven years.

Cardinal.—In four seasons at Oberlin, viz.: '92–'95, I saw only one pair of Cardinals in the county. Last year I saw and heard a half-a-dozen pair; but this year not less than twenty. We expect to find them this season in any considerable woods, and some, probably two or three pairs, are nesting right here in town.

Orchard Orioles.—Were not noted by either Mr. Jones or myself in a six years' joint residence here, up to last year, when three or four individuals were seen. This season at least a score have been noted, chiefly toward the lake shore.

Scarlet Tanager.—Never really rare; have been repeatedly remarked this year by the unobservant as something new. They are quite common.

Yellow-breasted Chat.—Last year, as noted in The Wilson Bulletin, we saw our first and only Chat. This year, altho they are by no means common, I have heard as many as four individuals in the course of an afternoon's ride.

Bob-white.—These birds are fairly plentiful this year, but it is unsafe for us to congratulate ourselves upon the fact. Dude sportsmen, who never hear their cheery whistle in the summer time, will slaughter them next fall for "Quail on toast." By the way, how much easier it is to kill "Quail" and "Rice-birds" than Bob-whites and Bobolinks.

W. L. Dawson, *Oberlin, Ohio.*

**The Destruction of Our Birds and Mammals*, by William T. Hornaday.

21775

BANK SWALLOW HABITS.

Lake Forest is situated on high ground on the west side of Lake Michigan. A few rods back from the shore are cliffs about seventy-five feet high, which always present an almost perpendicular face of glacial till, that is constantly being eroded away during stormy weather. The till is mostly clay, with sand "pockets" of several square yards cross sections frequently occurring; and these are in great favor with Bank Swallows as nesting places.

A group of these pockets near one of the walks along shore contained the burrows of about seventy-five pairs of Bank Swallows.

On May 10, 1898, I happened by this place. It was a bright, warm afternoon, and a good time for sun-baths. I found the swallows indulging in a performance somewhat different from anything that I had ever seen before. All seemed to be at it, and everything was done in earnest and with remarkable regularity. Gathered at the entrances of the burrows which were more or less completely excavated, the males would perform as we so often see cock sparrows do when courting, though with less vigorous demonstrations. The characteristic motion was a rapid vibration of the wings held a little apart from the body. Some of the time this motion seemed to be indulged in by all, which caused me to doubt its being a simple nesting performance; and I am not sure that the birds were doing anything more than having a play time. Every four or five minutes, during the hour I watched them, the whole lot would leave with a whirl and circle out over the lake a few rods, always returning to repeat the same performance again and again.

R. M. Strong, *Lake Forest, Ill.*

BIRDS FROM THE CAR WINDOW.

If one could judge from the attitude and occupation of the majority of rail-road travelers, an extended journey of that kind is not a thing to be desired. Indeed, the traveler who persists in window gazing, and perchance makes frequent use of note-book and pencil, is pretty certain to be relegated to the interesting tho not wholly desirable "greenhorn" type. Nevertheless, current writings give indisputable proof that nature study from the car window is coming more and more into favor as a regular and profitable means of making a journey pass pleasantly.

The morning of July 20, found the writer whirling over the broad prairies and swamps of western Indiana and eastern Illinois, on the line

of the "Nickle Plate" rail-road. He had been warned against the endless monotony of this region in vain. Monotonous it may be at noon-day, under the scorching rays of an almost vertical sun; but in the tender light of an early morning, while the birds are scarcely yet at their early devotions, while all vegetation is bending under the weight of a refreshing dew and the rich green of the lithe marsh grass sweeps away to the very horizon, it certainly is not monotonous to the nature student.

But birds are the topic under consideration. In the gray light of the early morning nothing could be seen against the green of the marsh grass, but clouds of swallows were startled from their perches on the telegraph wires and circled dizzily about. The stronger light revealed Red-winged Blackbirds, Meadowlarks and Bobolinks as they were startled from the marsh grass. As the day advanced birds continually passed in review. From the telegraph wires and poles Barn, Cliff, Tree and Rough-winged Swallows and Sparrow Hawks were startled by the approaching train. From the marsh and bog grass and reeds Green Herons, Bitterns and Short-eared Owls started up and soared away. Marsh Hawks and Great Blue Herons sailed lazily over the broad fields, and in the distance the Red-shouldered and Red-tailed Hawks could be seen. Huge flocks of Bronzed Grackles, with Cowbirds intermingled, passed in review from roost to feeding ground. The Song and Vesper Sparrows were everywhere present, and the Long-billed Marsh Wrens were much in evidence.

As the wet prairies gave place to sand dunes and wooded copses, Indigobirds, Scarlet Tanagers and Rose-breasted Grosbeaks, with the company of Flycatchers, put in an appearance. Tempting coveys of Bob-whites whirled away; Cardinals and Baltimore Orioles flashed from cover to cover; Red-headed Woodpeckers and Flickers vainly tried to outstrip the train; the Migrant Shrike was startled from his vigil, and the Belted Kingfisher from his reverie above the water. The Mourning Dove, Robin and Goldfinch were everywhere in evidence. At the water tanks Wood Thrushes, Maryland Yellowthroats, Field Sparrows, House Wrens, Towhees, Red-eyed Vireos, Wood Pewees, Catbirds and Chipping Sparrows were heard singing. Swifts darted about overhead continually.

On the return trip from Chicago, Crow, Bluebird, Blue Jay, Yellow Warbler, Purple Martin, Spotted Sandpiper, Prairie Horned Lark, Brown Thrasher, Grasshopper Sparrow and Ruby-throated Hummingbird were added to the list. It is seldom that I have made a larger list in a day's study in summer at home, not to mention such rarities as Short-eared Owl, Bittern and Great Blue Heron. One of the more in-

teresting facts learned was that the swallows and most of the Icteridae had already begun preparations for the southward migrations. Many of the birds were evidently still burdened with household affairs, but many of them were in the molt.

To you who find a rail-road journey irksome I beg to recommend a note-book tonic. It will do as well at one time of year as at another, and whether the journey be over new or familiar ground. It will be no harder on the eyes than reading, and far less confining.

LYNDS JONES, *Oberlin, Ohio.*

A PUZZLED GOLDFINCH.

Our woodshed is lighted by a single window of six small panes, or rather, five panes and a hole where one ought to be. On the outside a grape-vine is trained against the wall, and has grown up so as partially to shade the window. An ambitious runner has found its way through the open space and is groping wildly about in the inner gloom. This runner forms the mainstay of a complicated system of cobwebs which cover the window inside.

Yesterday, my wife, as she was passing through the shed, heard a peculiar tapping on the window, and called me to see a female Goldfinch seeking admission by one of the lower panes. We were at a loss to know at first what she was after, but came to the conclusion that she was hunting cobwebs. The particular pane she was at had a tempting network of them on the inside. The bird pecked and fluttered and worried for a long time until she gave every evidence of being mentally depressed. It was her first experience with bottled cobwebs, and it put her out considerably. She tried different panes so far as she could find support for her feet. Several leaves brushed the glass, but they would not hold the bird's weight, so she hit upon the scheme of biting the outer ribs in two and doubling the leaf over on itself. Thus folded the leaf would support her and she could peck away on the windows to her heart's content. All this time she manifested no interest in the broken pane where she might have secured easy access to a perfect mine of cobwebs. So enamored was she of her self imposed task, that she paid little attention to me as I approached from the inside. I even proffered her a grass head through the opening, and she nibbled at it sulkily without show of fear.

To-day she has returned to the attack. The outside webs have all been gathered, and I doubt not that she is somewhere lining a nest with

them, instead of the wonted thistle-down which is unavailable this year. There seems, however, to be a fatal fascination for her in the window, and especially in a lower corner pane, to which she now devotes her principal attention. Hour after hour we have found her there, until it seems as if it would be a mercy to drive her away. She has great trouble with her foothold. One leaf seemed well located except for the fact that another leaf tickled the back of her neck. That leaf must be punished! Again and again she flew at it in righteous indignation, and it has been drubbed so severely by the irate little beak that nothing but stumpy ribs remain.

Once we came upon her when she had blundered inside. She was zealously engaged in finding the hole she got in at, and had apparently forgotten her spider-web hunt. In her excitement she tried every pane but the right one. Cobwebs caught her, but she indignantly plucked them off. One, by an irony of fate, attached itself to her tail, and from it a large yellow moth depended. The little bird made frantic efforts to dislodge this disgrace and was finally successful. For what self respecting bird would endure to be tagged by a moth? Finally she gave up hope of exit through the window, and fluttered wildly about the room, uttering plaintive crys. Faster and faster went the circles until I feared Goldikins would come to grief, but fortunately, the door being now open, she dashed out into freedom. "Thus endeth," thought I, and I stole away to write her up. But no! It was not five minutes till that silly creature returned to that window, and there she has been for the last half hour—as she is at this moment—inanely pecking on the glass. The mystery of glass is evidently addling her poor little brain! What ought I to do about it?

W. L. Dawson, *Oberlin, Ohio.*

SUMMER BIRD STUDY.

The question has often been raised, What can be done in the way of field study of birds during the depressing summer months? There are some serious difficulties, it is true. There is the annual scamper to a summer resort, the debility caused by excessive heat, a scorching sun in the fields and countless but not debilitated insects in the wood. To those who find it necessary to seek a summer resort I have nothing to say, more than the suggestion that camping in some unfrequented place is both healthful and restful. It has been my great privilege to conduct a class of some thirty-four students in bird study during the term of our Sum-

mer School. The term is now so nearly at an end that it is possible to form some idea of the success or failure of this experiment. The object saught in this class was to so familiarize the students with our more common birds that they would be able to give intelligent guidance to the children under their charge in the school room. This was chiefly accomplished by field study, with, as well as without, the teacher. But the method is of far less interest than the result. Notwithstanding many days of excessive heat, and frequent interruptions by rain (an unusual occurrence in summer here), some eighty species of birds have been recorded, fully fifty of them many times, and upwards of forty have sung for us repeatedly, while the nesting of fully twenty-five has been studied satisfactorily. Excellent opportunities have been afforded for the study of young plumages and the care of the young, while much has been learned of the molt and of the roosting habits.

The insects and heat, while causing more or less inconvenience, have not proven serious obstacles. The practice of long walks and long hours of field work has resulted not only in the ability to do more of it but to enjoy it so that it has become a pleasure, as the many expressed regrets that the term is so nearly closed indicate. The term's work has impressed upon me the fact that summer bird-study is both possible and profitable, while at no other time can the songs be studied so well, for then they are heard singly and the singers can be approached more readily. There is almost no medley of bird music from which the different songs must be separated out.

The keen and sustained interest exhibited by this class of both teachers and students gives me great hope for the future of the birds. In the near future there will be greater strides made in the dissemination of "Acquaintance with the birds" among school-children, a right acquaintance, than the whole past has seen. Let the good work go on.

LYNDS JONES, *Oberlin, Ohio.*

JULY NESTING.

As we come to count up when the month is only a little more than half over, it seems remarkable the number of birds we have found nesting here near Oberlin, in July. Of course we expect to run across some belated nesters every season, but as Mr. Jones and I compare notes we find that we have recorded eggs belonging to fourteen species of birds in only three days afield this month—and that too, without paying any particlar attention to nests. Is the nesting season later than usual this

year? or have we been blinded to the fact that birds nest regularly in July at this latitude? That the former supposition must have at least some weight my note-book will show. Where I have four species nesting for April and ten for May (all accidentally or at least *in*cidentally discovered), I have also ten for June, and here, with Mr. Jones, fourteen for July. This count includes, of course, only those actually examined. No account is made of nests containing young.

The following is the record of the three July days:

July 4.

Cliff Swallow.—A colony of twenty pairs contained two or three sitting birds.

Cedar Waxwings.—Two nests were found in an orchard, one containing four eggs, and the other containing one egg and three young just hatched. Beside these were found three nests as yet unoccupied.

Robin.—One nest with four eggs examined. Other sitting birds seen but not disturbed.

Chipping Sparrow.—Four eggs, apparently fresh.

Phoebe.—Four eggs in a nest placed on a shale cliff.

A Warbling Vireo's nest not quite completed contained a single Cowbird's egg with a sizable hole in it, probably made by the aggrieved party. As the contents of the egg were unaltered, the evidence is strongly in favor of the July nesting of the Vireo—but we don't count her.

July 5.

Spotted Sandpiper.—Four eggs.

Vesper Sparrow.—Three eggs.

Field Sparrow.—The nest contained three eggs of the Sparrow and one of the Cowbird.

July 12.

Vesper Sparrow.—Three eggs.

Song Sparrow.—Three eggs of the Sparrow and one of the Cowbird.

Crested Flycatcher.—Three eggs.

Wood Pewee.—Two eggs.

Cardinal. Two Eggs.

Wood Thrush.—Two eggs.

These last three were probably second attempts of birds whose nests had been disturbed.

W. L. Dawson, *Oberlin, Ohio.*

GENERAL NOTES.

Rough-winged Swallow.—We have long suspected that this Swallow nested on the shale cliffs on the Vermillion River, in this county, but were able to verify our suspicions only this summer. On the 24th of June, I saw one of these birds visit a cranny in the well shaded west wall, at a point nine feet above the river. By the aid of a short log, I reached up and explored the black, narrow passage, formed by the partial springing of a superficial shale layer. Several half fledged young rested on a considerable heap of straw at a distance of about two feet and a half. The female charged boldly at me twice, but for the most part did not venture within fifty feet of me.

English Sparrow Nesting in Shale Cliffs.—It is usually gratifying to find a bird nesting in a state of absolute nature. For instance, altho we are often pleased to have the birds accept our hospitality, it is more interesting to find a Chimney Swift nesting in a hollow tree than in the present conventional situation. But I confess to feelings of mingled disgust and despair when I found, on July 4th last, that the English Sparrows were nesting freely on the high shale cliffs of the Vermillion River near Mill Hollow. Is no place safe from the desecration of these impudent intruders? Every available cranny of the cliffs at this point was occupied by them, and the clatter of passerine Billingsgate filled the air. The place is several hundred yards from any buildings and is as secluded as any native bird could desire. Doubtless these ruffians are dispossessing the Rough-winged Swallows, who were finding all too few favorable nesting sites as it was.

W. L. Dawson, *Oberlin, Ohio.*

Is it generally observed that the female Goldfinch is an outrageous thief? On the 7th day of May last year, as I sat at the window watching a Chipping Sparrow building her nest in a small red cedar, I observed that every time the Sparrow went off in search of more material the Goldfinch quietly slipped into the bush and proceeded to pull the nest apart, flying off with portions of it in her bill. What could she want of it so long before her own nesting season? Later on, last summer we watched a female Goldfinch pull a Hummingbird's nest to pieces, taking out the downy lining almost faster than the Hummingbird could put it in.

Miss E. D. Roberts, *Wooster, Ohio.*

EDITORIAL.

Our fellow member, John W. Daniel, Jr., as 1st lieutenant, 3rd Brigade, Rosser's Staff, in company with Dr. Edgar Mearns, is on his way, with the army, to Puerto Rico, where he will have opportunity to study the avifauna of our new island possession.

Again the heated term, coupled with the unusual interest in our war with Spain, has contributed to a dearth of copy for this issue. The editor pleads guilty to negligence in soliciting copy early in July, in the hope that solicitation would be unnecessary. But members should not wait to be asked to contribute short notes of interest; that is as much a part of the duty of membership as working for the committees. This number is both late and four pages short. Do not let this occur again.

Our Constitution provides that nominations for officers for the ensuing year must be made in September. As heretofore the September issue will be delayed a few days in order to announce the list of nominees. There should be no nominations for the office of Vice-President, since the person receiving the second highest number of votes for President is declared Vice-President. The list of nominations should be forwarded to President R. M. Strong, North Greenfield, Wis. Will not every member send in a list of nominations? By so doing your interest in the organization will be increased, and your zeal for study of the birds will receive a greater impetus.

Have we ever stopped to consider the real reason for the existence of our Chapter? What is its mission in the field of scientific investigation, and is it fulfilling that mission? Our Constitution declares that the object of the Chapter is the systematic study of Ornithology and Oology, and the publication of the results. But to furnish an excuse for existence the Chapter must have a mission as well as this broadly stated object. The mission, if we properly understand it, is the exhaustive study of some one limited topic, accomplished by the plan of co-operative study. The degree to which we are fulfilling this mission will find a ready answer in the mind of each member, for its fulfillment depends directly upon the earnest effort of each member. A complete fulfillment necessitates an exhaustive study of the object chosen by each member in his own locality. While a complete fulfillment can hardly be hoped for, on account of the limitations of time and opportunity of the most of us who are pressed by other duties, yet completeness can be closely approxi-

mated by earnest and intelligent attention during the opportunities for study. The mind must be trained to receive the impressions which eye and ear are constantly bringing to it. Probably the most of us are able to retain enough of a song, even once heard, so that we shall be able to recognize it weeks or years afterwards if it be repeated, but I doubt if more than a chosen few could imitate successfully even a small pittance of the more common songs and notes heard nearly every day. Then a secondary mission of our Chapter must be the training of the faculties for more careful and profitable study.

What have we done that will furnish assurance of future success? There is but one published report that is worthy of our high ideal—the Crow Report, BULLETIN No. 4—, but there are others under way. Mr. Frank L. Burns, the compiler of the Crow Report, has a similar work on the Flicker well under way, besides the several other investigations mapped out, for which see BULLETIN No. 19, page 26. It is earnestly hoped that these reports may be pushed to an early completion and published. Your investigations will contribute largely to this end.

PUBLICATIONS RECEIVED.

Bird Tablet, for Field Use. By Josephine A. Clark, 1322 Twelfth St. N. W., Washington, D. C. Price twenty-five cents. Special rates to schools and classes.

In this *Bird Tablet*, Miss Clark supplies the need which every beginner must feel of a printed form which will at once furnish a record book which will enable the student to go to his key with a fair prospect of arriving at the correct identification of the bird seen, and also train him to look for the more essential points of structure, markings and habits. The beginner is too often led to stop with general impressions, giving little or no attention to details. This *Tablet* will correct that tendency, and prove to be an educator to eye and ear, and lead to a habit of discrimination, so necessary in the study of birds. There are fourteen main heads, with sub-heads under the most of them, and usually ample space left for annotations, besides two full pages for "Notes." While the printed descriptions are not intended to be exhaustive, they are sufficiently detailed to furnish a basis for intelligent work. Beginners in bird study will find this *Tablet* a useful field companion.

The Summer Birds of Susquehanna County, Pennsylvania. By Francis R. Cope, Jr.

After a few introductory remarks relating to the literature, location and fauna of the county, the author presents a pretty fully annotated list of the birds which are known to nest in Susquehanna county. The list comprises ninety-one species, five of which the author considers hypothetical, not having been actually found breeding by him. Similar lists, prepared by as trustworthy observers, throughout the country, would give us a basis for maps of life areas which would need very little future modification.

Charts of North American Birds. Published by Nature Study Publishing Company, Chicago.

These charts comprise eighteen sheets, representing 142 plates of birds and three plates of eggs. One of the bird plates is repeated, thus leaving 141 species of birds represented, while there are forty-nine species of eggs represented on the three plates. These plates have already appeared in that unparalleled magazine—*Birds*—and so need not be given individual attention here. For the first time they are here grouped in more or less natural order, as one finds them associated together in the fields. These groupings must be seen to be appreciated. They are certainly a work of art. It is too much to expect that a work of this kind should not have some defects or some possibilities for improvement, but it is cause for congratulation that there are so few necessary changes. The third cover-page is devoted to an outline bird at the top with the printed names of all the parts illustrated. It is cause for regret that this figure and the labelling is unworthy of the company in which it has been placed. It is earnestly hoped that it will early be supplanted by an accurate figure. The lower half of the page presents an alphabetical list of all the birds represented on the plates, with first, the A. O. U. number, common name, small figure referring to the collection from which the subject is taken, scientific name, and the plate number. In this list we notice only two errors. The generic name of the Belted Kingfisher should read Ceryle instead of Alcedo, and the Nonpareil, or Painted Bunting should be given the A. O. U. number 601. One can appreciate the difficulties of an undertaking of this kind only when he attempts any arrangement of the Nature Study plates of birds. These charts are printed on strong manilla paper, which is reinforced on three edges with cloth. The twenty sheets are securely fastened in a solid oak stick which is supported on an adjustable tripod, the whole weighing but a few pounds. We predict a wide sphere of usefulness for these charts.

At You-All's House. A Missouri Nature Story. By James Newton Baskett. Published by the Macmillan Company, New York.

In this little book of thirty-five chapters and 346 pages, we are treated to a natural country love-story with a most pleasing setting of Nature. The author discovers rare familiarity with country life and manners, and an artist's pen in the nature descriptions. It is a pleasure to note that the true influence of Nature upon the personalities of the story is given a fair share of notice. The reader cannot but feel the refining influence of natural surroundings because he is led to realize something of the mission of such surroundings. He who reads this little book will find in it both pleasure and profit, and will finish it with a clean taste in his mouth. It will give him a desire to know more of the natural objects which are his daily surroundings.

American Monthly Microscopical Journal. Vol. XIX, Nos. 5, 6 and 7.

Birds. Vol. 3, No. 6.

Birds and All Nature. Vol. IV. No. 1.

Book Reviews. Vol. XVI, No. 2.

Bulletins 92 and 93, Ohio Agricultural Experiment Station.

Fern Bulletin. Vol. VI, No. 3.

Journal of Applied Microscopy. Vol. I, No. 6.

The Kingdom. Vol. X, Nos. 35 and 39.

Lakeside Magazine. Vol. IV, No. 11.

Mineral Collector. Vol. V, No. 11.

Museum. Vol. IV, Nos. 8 and 9.

Osprey. Vol. II, Nos. 10 and 11.

Recreation. Vol. VIII, No. 5.

Shooting and Fishing. Vol. XXIV, No. 5.

Historical Sketch of the U. S. Department of Agriculture.

CHANGES IN THE AVIFAUNA OF LORAIN COUNTY, OHIO.

It is not my purpose to elaborately discuss the various changes which have occurred in the bird life of the county during its life as a county, nor even within recent years, but rather to notice some special features. In common with other parts of the eastern portion of the Mississippi Valley, as well as the Atlantic slope, and to a less degree other parts of the country, Lorain county has suffered the complete extinction of one or two birds, diminution in the numbers of some and the increase of others. In a region, the natural character of which has been so greatly modified as the Western Reserve of Ohio, from dense forests to relatively open farming land, it is doubtful if there are any species of birds which have not undergone some change in numbers or habits. But we are concerned with only the more striking changes.

EXTINCT SPECIES.

1. Wild Turkey, *Meleagris gallopavo.*—Formerly a very common game bird in the forests of the county, but it has long since entirely disappeared. A specimen in the Oberlin College museum was collected about 1858.

2. Passenger Pigeon, *Ectopistes migratorius.*—The immense flights of former years have given place to a condition of practical extinction. There is no recorded capture or occurrence within fifteen years.

DECREASING SPECIES.

Under this heading there should be grouped all of the Anseres, 23 species; Limicolæ, 18 species, and Gallinæ, 2 species, which are found in the county. The Woodcock and Bob-white are, however, on the increase, thanks to protective laws. Killdeer and Spotted Sandpiper are still common, but less so than six years ago.

Short-eared Owl, *Asio accipitrinus.*—It was reported as a common resident eight years ago, by Messrs. L. M. McCormick and Geo. D. Wilder. I have seen but two individuals in the past six years, and those on the lake shore in March.

Barred Owl, *Syrnium nebulosum.*—The steady decrease year by

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year has been only too evident. This is due as much to the restriction of suitable nesting places as to the "man with a gun."

Great Horned Owl, *Bubo virginianus*.—Eight years ago it was not infrequently seen in the deeper woods. I have not seen one for four years, and have heard of very few.

Nighthawk, *Chordeiles virginianus*.—From common it has become decidedly uncommon; from what cause I am not able to state. It is seldom seen at all except in fall.

Long-billed Marsh Wren, *Cistothorus palustris*.—The restriction of suitable nesting sites has nearly driven this wren from the county.

Bluebird, *Sialia sialis*.—The recovery of this species from almost extermination in the winter of 1894-95 has been remarkable. It is not yet abundant, as it was previously, but is becoming so.

INCREASING SPECIES.

In these days of a gradual decrease in wild animal life as a whole it is a genuine pleasure to record the marked increase of a few species. A careful study of our records enables me to add a number of species to those given by Mr. W. L. Dawson on page 49 of the present volume. Mr. Dawson's list includes Baltimore Oriole, Cardinal, Orchard Oriole, Scarlet Tanager, Yellow-Breasted Chat, Bob-white. There are several species whose increase has been very apparent but no cause can be assigned. They are:

Turkey Vulture, *Cathartes aura*.—Always in evidence during the warmer months.

Long-eared Owl, *Asio wilsonianus*.—Usually either seen or heard in every moderately heavy woods, responding to an imitation of its notes.

Red-bellied Woodpecker, *Melanerpes carolinus*.—In nearly every piece of woods, and even strays into town occasionally.

Green-crested Flycatcher, *Empidonax virescens*.—The increase in numbers during the past four years has been remarkable. Now every considerable woods boast its scores of pairs, where formerly it was scarce or absent.

Grasshopper Sparrow, *Ammodramus savannarum passerinus*.—The first record of Mr. L. M. McCormick was May 30th, 1892. Since 1893 it has been one of the common birds of the fields.

Lark Sparrow, *Chondestes grammacus*.—Like the preceding, Mr. McCormick's first record is May 30, 1892. Since 1895 it has gradually increased, but has not yet become common.

Cedar Waxwing, *Ampelis cedrorum.*—Formerly irregular, it is now a common resident. It was decidedly common during the past summer, nesting in orchards and in towns.

Wilson's Thrush, *Turdus fuscescens.*—During the last two summers it has nested rather commonly. Our records show that it is variable in this respect.

In the foregoing enumeration I have purposely omitted all species about which there might be a question, because of the greater amount of field work which it has been possible to do in the last four years than formerly.

It is my hope that more careful attention may be given to the actual numbers of individuals of the different species that are more common and more familiar, with the idea of furnishing exact data for comparison in years to come. We need to learn the effects of our civilization upon our environment.

Lynds Jones, *Oberlin, Ohio.*

AN AFTERNOON AMONGST OLD SCENES.

Tuesday, September 13th, finds us once more walking through those favorite fields of the collector, which bound the Mississippi below the C. B. & Q. R.R. bridge, opposite Burlington, in Illinois,—our destination being Ellison Slough. The day is all that can be desired—bright, yet pleasantly cool.

As we push through the timber we note numerous feathered friends,—the Woodpeckers being perhaps the most conspicuous since they insist upon making their presence known by their loud notes. Next in point of noise, or perhaps I should have placed him first, is our garrulous Blue Jay, who is ever willing to let us know his whereabouts by some appropriate remark. Little fellows are now and then seen flitting among the taller elms and the Warbling and Red-eyed Vireos seem not to have forgotten their sweet cry, for ever and anon we hear one babbling to himself, no doubt recounting the pleasures of the past season. Even the cheery little note and bright gleam of the Redstart do not arrest our step,—but we do stop, just for an instant, yet long enough to add a Golden-crowned Thrush to our study series.

On we tramp, pausing to add a Tufted Tit to our bag, before we cross the trestle which spans Running and Prairie Sloughs. Here we admire the new club house and wish we might enjoy its hospitality and comforts

for a while, but time will not permit, so we simply wave our hat at Mr. Runge and continue our march down the railroad track. A few Doves, enjoying a sunny sand bath ; a band of merry Chicadees ; a Fox Squirrel, which happens to cross the track ; a Water Trush, very likely Grinnell's ; and a few other warblers, who keep their distance and hence remain strangers ; a Flicker or two ; a Barred Owl and a few piping Downy Woodpeckers are about all we see until we reach Ellison Creek.

Ah ! where is my prairie ? Where my flocks of roving Bobolinks ? All gone ! A sea of tall moving corn greets my eyes ; I am disappointed. Yes, I admit I am not practical. I would prefer the prairie, with its Bobolinks, its Shorelarks, Doves and Upland Plovers, those long drawn notes I had hoped to hear again, a thousand times to the moving grain.

Why is it, that one longs to see old scenes appear, just as of old ? Why are we hurt, when we return and find that our favorite tree, "neath whose leafy arms we often sought repose," has been supplanted by some stately home ? Civilized vandalism is what we mumble as we pass on ; the place is estranged to us—we are no longer friends.

I confess I felt deeply hurt when I beheld my favorite piece of prairie turned into a prosaic, monotonous cornfield of enormous extent. Fortunately Ellison Creek has high banks and the plowman has left a broad skirting strip for a road, now all grown up in weeds, chiefly Bidens and Ambrosia. Slowly we work through this, now and then flushing a Field or Chipping Sparrow. At the hog-pen we find a host of noisy Jays in clamorous debate with Red-headed Woodpeckers, and a little further on we even flush a Savanna Sparrow who makes good his escape by a hasty retreat. No more birds are seen until we reach the little slough below the farm house. Here we add a Sora to our collection and admire the lazy flight of a Red-tail as he flaps off into the timber. Doves and Bronzed Grackles are quite plentiful.

After sampling a quart of milk apiece, at the farm house, we continue our journey to the Spring-heads. Here my friend, Mr. Poppe, flushes and brings to grief, with the auxillary, the first specimen of Yellow Rail which I have ever observed in this locality. It is useless to say that I took the Yellow Rail fever, a very severe malady when one is not attired in high water-proofs, and with combined efforts we managed to raise and drop two more.

White-bellied, Barn, Cliff, Bank and Rough-winged Swallows are coming in, to rest on the tops of the Iron-weeds for the night. For here we still have a bit of the old flora remaining, a reminder of olden times. A Long-billed Marsh Wren and a Dickcissel are conveyed to our satchel,

while a belated Maryland Yellow-throat complains of the disturbance. As the sun sinks low behind the timber we merge from the marsh, tired, weary and dirty, but we forget all about this when a little bird jumps up under our feet and skulks off to a willow bush, where we send a No. 12 invitation from the .44 X. L. to which he graciously responds. Luck once more! It is my first Lincoln's Sparrow, a fitting climax to the day.

PAUL BARTSCH, *Washington, D. C.*

A FEW BELATED REMARKS UPON THE NESTING OF JUNCO.

Some time ago there appeared in the BULLETIN an appeal from the Editor for "light" upon the genus Junco. At the time I was quite busy, and though I wanted to give what little experience that I had had to my brother members, I failed at the time to get opportunity to do so, and not till now have I gotten the leisure, though the query still remains, and all along remained, in my thoughts.

Standing in my back yard, at my home in Lynchburg, Va., are three specimens of *Juniper virginica*. In the gloaming, I used to take frequent strolls out in the yard to drink in the perfumes of the southern roses, inhale the pure air, and look and wonder at those glorious sun bursts and cloud effects such as you see only in the quiet valleys of "Old Virginia," with the blue rim of the Alleghanies as a background, and the magnificent "Peaks of Otter," the highest of Virginia mountains, rising up in quiet dignity in the distance, with the lazy tinkling of home-ward bound cow-bells and the "slowly winding herds over the lea." It is on such an evening that I most enjoy myself. To be away from the mad rush and clamor of the city, and to lose myself in pleasant thoughts and reveries and to commune with "Nature in her visible forms" alone and undisturbed. It was at such times that I became familiar with the roosting places of Junco. In the dense foliage of *virginica* they would settle themselves. Often I have watched them flying into the trees, exposing their white rectrices and dodging hither and thither among the dense foliage. There was a box elder tree standing in the yard and frequently numbers would settle into this and spend the night, but not so numerously as in the cedars, the *Juniper virginica*. This was Junco *hyemalis* or perhaps some few were of the *carolinensis* sub-species. The season was late fall and the birds were there for the winter. They

would frequently fly out of the trees uttering their peculiar twittering note, which when once heard is well remembered.

That has been my experience anyway. So it is an established fact that Junco roosts in the thick foliage of *Juniper virginica*, at least in Virginia. And how its western relatives spend their nights I regret exceedingly I can't *throw* my search light of experience, having never lit the candle upon them or in their neighborhood.

JNO. W. DANIEL, JR., *Lynchburg, Va.*

ANSERES WHICH VISIT THE OBERLIN WATER-WORKS RESERVOIR.

Ever since the new reservoir, which contains about three acres of surface, has been finished, the writer has endeavored to keep a complete record of all ducks and geese which have ventured upon its waters. Reference has so often been made to this small sheet of water in previous numbers of the BULLETIN, that it may be well to call special attention to it now. The reader who is unfamiliar with the village of Oberlin will do well to examine the map of Oberlin opposite page 41 in BULLETIN No. 15. 29, near the lower left-hand corner of the map, indicates the position of the pumping station, but the spot intended to represent the reservoir is for the old reservoir. The new one lies south and west of the old one, occupying the bed of Plum Creek as represented on the map, the course of the creek having been thrown to the south. Immediately south and west of the new reservoir there is a small grove of large trees, bounded on the east by an osage orange hedge fence. The reservoir thus lies in a trough where the creek bed used to be, and cannot be seen from the higher land on each side. Allow me to say that the reservoir embankment is so high, and its bottom so built, that outside water cannot enter.

Morgan street is well built up with dwelling houses, and a dwelling house at the end of Kinsman street overlooks the reservoir. The region west and south of the reservoir is not built up, thus affording a means of approach from these directions. However, the village boasts of so many and such large shade and ornamental trees that the buildings are well hidden from any direction. To an observer on the highest building there are scarcely more evidences of a village than the steeples towering above the mass of foliage. But to the keen eyed flyers, suspicious of every least indication of human activities, the village is an object to be

avoided if possible. It is interesting to notice that a large proportion of the birds which find their way to the reservoir follow the course of the creek down or come ocross the fields from the south. Flocks which have passed high above the buildings returning from the north, pass completely over the reservoir, whirl about, circle a few times, approach the pond from the south-west, whirl around its margin once or twice, then plunge upon its surface with a great splatter and whistling of wings. Such species as come singly or in pairs or very small flocks usually steal in under cover of darkness, or fly low near the woods or hedge, attracting little attention. The passing of a train or the sudden appearance of a person above the embankment will usually startle the most courageous birds away. Many return almost at once and many remain even when the reservoir is nearly surrounded by people, provided no sudden demonstration is made, It often seems almost marvellous how reluctant the ducks are to leave this small sheet of water. Probably the reason may be found in the prohibition of shooting anywhere near the premises. It is certainly true that the numbers visiting the reservoir are constantly increasing. May this small place always be a secure haven of rest to the moving host.

Below is a list of the species recorded to date with some remarks upon their occurrence.

American Merganser, *Merganser americanus*.—Twice recorded. April, 1896, May 4, 1898. It is one of the most timid species, appearing in the early morning and departing at the first signs of activity on the street.

Mallard, *Anas boschas*.—March 26 and 28, 1898. A female which remained all day.

Bald-pate, *Anas americana*.—A female seen on the water in the spring of 1896.

Blue-winged Teal, *Anas discors*.—There were several seen April 3, 1898.

Pintail, *Dafila acuta*.—Visits the place every spring, but is very shy, leaving early in the morning.

Red-head, *Aythya americana*.—April, 1896, March 12, 1898. Another very shy bird.

Canvas-back, *Aythya vallisneria*.—Recorded by Mr. L. M. McCormick for the old reservoir

Americn Scaup Duck, *Aythya marila nearctica*.—March 24, 1898. One of the less timid ones ; permitting a near approach.

Lesser Scaup Duck, *Aythya affinis*.—One of the commonest and boldest of the visitors ; seen every year.

Ruffle-head, *Charitonetta albeola.*—Frequently associated with the preceding, and even bolder. Usually, as the last, in mixed flocks, the females outnumbering the males.

Ruddy Duck, *Erismatura rubida.*—November 13, 1897, April 23, 1898. I found them much like the Grebes—diving when alarmed and loth to leave the water.

Blue Goose, *Chen caerulescens.*—October 28th, 1896, two were captured. They were not at all timid, and permitted a near approach. A very rare occurrence for so large a bird and so small a body of water.

Canada Goose, *Branta Canadensis.*—Single individuals soar about the reservoir nearly every spring. But one was ever known to light.

Thus 13 out of the 23 species which have been found in the county have visited this small and seemingly unfavorably situated body of water at one time or another.

To this list should be added the other "Water Birds," but they can perhaps better wait until another time.

Lynds Jones, *Oberlin, Ohio.*

"SOME REMARKS ON THE BIRDS OF CHESTER COUNTY, PENN." *

Following the publication of the paper of which the above is the title, I received several communications calling my attention to facts of which I had previously been ignorant. In order that no one may be misled through my misunderstanding of the true state of affairs, I make the following statements:

1st. The responsibility of so many of the remarkable statements in the "list" referred to, should not rest wholly on the shoulders of the ostensible author, whose experience had been limited to two or three years of field work.

2nd. Our local ornithologists seem very loth to adopt the records given by my correspondent for the reason that memory is a very unsafe thing to depend upon especially when one has collected in many parts of the country. It is said that it is no uncommon thing for some men who have collected in various places and whose intentions may be perfectly honest, to get certain experiences mixed up in their memory and state with great certainty that a kind was killed at such a time and place, when the specimen they were thinking of was something quite different. Unfortunately my correspondent cannot refer to his cabinets of skins and

*Bulletin No. 12, Wilson Ornithological Chapter.

eggs with accompanying data, as his collection was sold while he was absent on a collecting trip to the far South, and delivered to a person in the west, by a friend, Mr. Zahn, now deceased.

FRANK L. BURNS, *Berwyn, Penn.*

GENERAL NOTES.

CHIMNEY SWIFTS.—The Swifts came back to this locality about the 19th of April. They paired toward the middle of May, and two of them decided to use one of our chimneys for a home. The nest was begun on Sunday, May 29th, and was completed on the 3rd of June. The laying began on the next day, when the first egg was laid, and the birds seemed to lay every other day, as eggs were noted on the 6th, 8th and 10th of June. They did not waste any time but began to incubate on the day after the last egg was laid—the 11th. Between the times of laying the third and fourth eggs the female stayed more on the nest, but hardly enough to be starting to incubate. The morning seemed to be the favorite time for laying, as all four of the eggs were laid sometime during the morning. After the four were laid I tried to take a picture of the nest and eggs, but did not get a very good one for some reason. When I would put the camera in, the bird would crouch lower on the nest, and when I would wave my hand, it would fly off the nest and cling to the wall during the taking of the picture. The nest was about eleven feet below the hole in the chimney through which I was forced to operate. Usually they build above the hole, nearer the top of the chimney. On the 28th of June two of the young Swifts appeared, and on the 29th two more. They grew fairly well until the 16th of July, when the dampness in the air must have caused a tragedy, for on looking into it at the usual time on the 17th, I found that it had dropped to the bottom of the chimney. I noticed that the old birds were down there fussing around, but could not see whether the young were alive; but in a couple of days three of them appeared on the side of the chimney a foot or so above the bottom. The other must have been killed. These three stayed there for a couple of weeks when they began to slowly climb up the side of the chimney, reaching about the top of it on the 4th of August, and the next day took their first lesson in flying, or at least in the outside world, and surely it must have looked entrancing to them after the depths of the chimney.

SIDNEY S. WILSON, *St. Joseph, Mo.*

CHIMNEY SWIFT NESTING IN A BARN.—July 7, the boy where I was working in Albion, Dane Co., Wis., called my attention to the nest of a

Chimney Swift, *Chætura pelagica*, placed about six feet below the roof, on boards of the side of the barn. The nest was made in the usual manner, and had at the time, four fresh eggs.

I found one Golden-winged Warbler, *Helminthophila chrysoptera*, among our visitors this spring. This felllow is so occasional in his visits to Wisconsin that it is a privilege to meet him.

G. Merton Burdick, *New Auburn, Minn.*

Hooded Warbler.—A hard and continuous down-pouring of rain had driven me homeward from a little collecting tour on the South Valley Hills, near mid-day of the 11th of May, 1898. Crossing a typical Pennsylvania ravine, with its small and clear stream at the bottom and steep hillsides covered by medium oak and chestnut with the usual laurel underbrush, I heard an unfamiliar voice in a spicewood thicket and observed a pair of birds feeding close to the ground. In the semi-gloom I fired twice before securing one of them. This was my first capture. The species probably formerly nested in our midst, and Dr. Warren is the authority for a breeding record in Chester county in recent years, although it is now regarded as a rare migrant in eastern Pennsylvania, while quite common in New Jersey.

Upon dissection I thought I had secured a male minus the hood and with testes much swollen. I felt sorry I had prevented a possible breeding record. Since then I have become convinced that I had mistaken the supra-renla capsules which occur just where the testes are found in the male bird and that my specimen is really a female. Mr. William Palmer whose article in the *Auk* has proven beyond reasonabla doubt that the male attains its hood the first season, has written that my bird is doubtless a female in its second summer.

Now all of this is common-place enough, but I wonder how many collectors have hoodless Hooded Warblers in their cabinets improperly sexed? Doubtless not a few, as Baird, Cones and others of our foremost authorities have made this mistake.

Frank L. Burns, *Berwyn, Penn.*

North Greenfield, Wis.—There seems to be an unusual scarcity of birds here, tho I have not been able to be out in the field much. The usual flocks of Nighthawks and Whippoorwills went thru in August. Bluebirds seem to be common. A few Bob-whites are reported now. There is a close season for a few years, and sportsmen have been "planting" them in this vicinity and out thru the state. They were practically extinct here a few years ago.

Reuben M. Strong, *North Greenfield, Wis.*

1898 ELECTIONS.

As no nominations have been made for the offices of the Wilson Chapter for the ensuing year, I see no other course than to announe that the present officers will remain in their respective positions awaiting the further pleasure of the Chapter.

The BULLETINS of the Chapter are read and praised by many of the most prominent naturalists of the country; but to continue their publication another year is a burden which ought not to fall so largely on the shoulders of Mr. Jones as it has in the past. With a fair increase in membership and a more general contribution of notes it will be possible to keep up the BULLETINS. If the members of the Chapter wish to see a good work go on, the time is ripe for an expression to that effect. The chairmen of committees have informed me at various times that their work moves slowly through the lack of support in the way of notes and data. The committee work certainly offers excellent opportunities for original investigation by men who have a more or less limited amount of time for field work. Observations, though they may be few, if they have value find opportunity in the committee reports for publication and coordination. An aggregation of reports of various members such as the Sparrow and Crow Reports has permanent value, whereas the individual reports in most cases, if published alone in the regular journals, would have soon passed out of sight.

I should like to add another committee to the Chapter's sections to take up the study of variations of species as shown by skins and eggs with the use of curve criteria. My plan is to select some group like the Ground Sparrows or the Horned Larks. I shall be glad to hear from members who may be interested in this subject.

R. M. STRONG, *President Wilson Chapter.*
11 Mellen St., Cambridge, Mass.

EDITORIAL.

The delay of an entire month in the appearance of this number of the BULLETIN has been unavoidable, but it will not occur again. It should be needless to remind the reader that the prompt appearance of copy upon the editor's table will always ensure the prompt appearance of the BULLETIN. To ensure the prompt appearance of the November number contributions are solicited now. Please give this matter your immediate attention.

It is likely that Bluebird, Robin and Meadowlark will have seriously begun the southern movement before this copy is mailed. May we not have reports from every member and every reader concerning these movements for publication in the next number? Won't you send your notes to the editor at once?

We greatly regret that Mr. Walter A. Johnson is no longer able to attend to the editorial duties of the well known *Osprey*, on account of ill health. It is to be hoped that the valuable publication will be continued with as able management.

It gives us pleasure to announce that our President, Reuben M. Strong, is engaged in graduate study in Harvard University this year, and that a part of his work is to be in Ornithology. There is certainly no department of science which is more worthy of study than our chosen one, and it is gratifying to know that this fact is now recognized by our best educators.

CHANGES OF ADDRESS.

G. M. Burdick, to New Auburn, Minn.
Walton I. Mitchell, to Albuquerque, N. Mex.
R. M. Strong, to 11 Mellen St., Cambridge, Mass.

PUBLICATIONS RECEIVED.

American Archeologist, Vol. II, No. 9, September, 1898.

Birds and all Nature, Vol. IV, Nos. 2 and 3, August and September, 1898.

Book Reviews, Vol. VI, No. 3, September, 1898.

Bulletin No. 9, Oberlin College, June 15th, 1898.

Bulletins Nos. 9, 10, 11, U. S. Department of Agriculture, Division of Biological Survey.

Iowa Ornithologist, Vol. IV, No. 3, July, 1898.

Journal of Applied Microscopy, Vol. I, Nos. 7 and 8, July and August, 1898.

Museum, Vol. IV, Nos. 10 and 11, August and September, 1898.

Osprey, Vol. III, No. 1, September, 1898.

Sportman's Magazine, Vol. II, No. 8, August, 1898.

SOME "BIRD WAYS."

All of us, no doubt, in the course of our bird-observations, have met with, or had brought to our attention, what might easily be termed incidents and, as such, the following, a trifle out of the ordinary, and perhaps worthy of recognition in some permanent form, have come to the writer's notice from time to time, either through the corroborative and reliable testimony of others or by direct observation.

To Mr. William Brewster we are indebted for much information and many valuable notes pertaining to and taken in connection with the migratory movements of birds, and in his paper on "Bird Migration" (see Memoir No. 1 of the Nuttall Ornithological Club) he has called attention to the peculiarities sometimes indulged in by migrants when approaching the lighted lantern of a light-house during a night flight—peculiarities, it may be said, when the conditions were peculiarly favorable; i. e., "during densely cloudy or foggy weather." Fluttering about inspecting it timidly, or even striking it gently. Others, more impetuous, would strike the lantern with full force, thus ending their careers then and there, or disabling themselves hopelessly, while others still would strike with slighter force, flutter down upon the platform of the lantern in a dazed and exhausted condition, but after resting for a time would take wing and disappear in the darkness. A percentage of the latter, however, returning and striking the light *again* and *always* harder the second time than at first. The bewildering and fascinating effect that a light will sometimes have upon these nocturnal migrants was very clearly illustrated to the writer some years ago, occurring here at Glen Ellyn on the night of April 16, 1893, being related to me at the time by a neighbor friend.

On the night mentioned, which previously had been somewhat showery during the evening, a Kingbird, *Tyrannus tyrannus*, appeared at one of the east windows of my neighbor's house, and in which a lighted lamp had been placed. It fluttered against the glass for some time and could not be induced to leave even after repeated efforts had been made from within to drive it away. Finally the door on the same side of the building was opened, when in flew the bird. It was caught and placed in a cage, appearing very much exhausted and bewildered for a time, but soon became uneasy; its violent actions convincing my friend that its

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release would be preferable to captivity, and accordingly it was set at liberty out of doors, the lamp still remaining in its original position. The bird returned at once to the window, fluttered about as before, and continued to do so until the light was removed, when it disappeared in the darkness. The building in this instance, the temporary abode of my neighbor, was an old unpainted affair—a shanty, in reality—situated in a hollow, its outlines being scarcely discernible to the passer-by on any dark night. These facts are considered worth mentioning as they doubtless have some bearing on the case. The date of the bird's arrival here is also unusual, being about a fortnight ahead of the schedule time.

The next incident is in relation to a pair of Robins that started to nest on the same gentleman's premises, but in this instance a new building lately constructed. For a nesting site they had chosen the cornice-roof of a projecting-bay and had proceeded so far in their plans as to deposit one egg. At this period a number of house painters appeared upon the scene, and in cleaning up about the premises, preparatory for work, almost the first thing they did was to remove the Robins' nest from the bay, giving the egg to one of the inmates of the house and throwing the nest upon the ground. My neighbor coming home that evening found the birds in great distress and, ascertaining the cause, insisted that the nest be put back in its original place, egg and all, which was done. The following day the female Robin had taken possession of her nest, the sequel being that a brood of young was successfully hatched and reared.

Before removing to Glen Ellyn, we occupied a house well within the resident section of Chicago. In the spring of 1888 I was away from home, but the following facts were afterwards given to me by several members of our family. During early May of that year a King Rail, *Rallus elegans*, was noticed to have taken up its residence in our back yard, where it is said to have remained about a month, when some idle boy with perhaps little else to do, succeeded in crippling it with a stone, and the next morning it was picked up in the street in front of our house more dead than alive. In all probability the bird had been injured in the first place, but to what extent was not known, as it seemed to be in good condition when feeding about the lot. My people tell me that the Rail was on exceedingly pleasant terms with the several members of the house-hold, including both the dog and cats, and that it would frequently take a sun-bath in the company of the latter, something after the manner of a domestic hen, stretching its wing out over the extended leg. For food it seemed to subsist entirely on angle-worms which it caught during

the early morning hours, when it could be seen walking about the yard in quest of them. For night shelter it resorted to a wood-pile in a corner of the lot.

September 28, 1891, as my record reads, a rather unexpected occurrence took place on our premises here at Glen Ellyn. It was the advent of a young-of-the-year Prairie Chicken, *Tympanuchus americanus*, among the poultry, feeding with and following the chickens about the yard, although chanticleer and his flock did not look with marked favor on the presence of this new-comer, pecking and chasing it at every opportunity. At one time it followed several of the half-grown young into the front street, feeding with them among the horse-droppings and wholly unmindful of passing wagons and carriages. On other occasions when alone, it would fly into the top of a small mountain ash tree on our place and feed on the berries. The bird's weight upon the smaller branches would shake much of this fruit to the ground, but, having satisfied itself with that on the tree, it would fly down and clean up this fallen fruit. This it did several times. At roosting time it started to follow the poultry to their quarters and probably would have done so had the younger chickens been more quiet. But in selecting their positions for the night the noise and confusion made by them at that jostling age was altogether too much for our modest visitor, who, viewing the situation at a distance for a time, decided to take wing and return to the fields. We never saw it again. Although this immature example of the Prairie Hen appeared to be in most respects unmindful of the treacherous ways of man, never-the-less, its inherited fear of the murderous gun was quite fully demonstrated I think.

While watching the chickens going to roost, a young man of the neighborhood passed our place with a gun upon his shoulder. The hunter's appearance almost paralized our now timid bird which stood motionless assuming an attitude almost upright, like a stake, but dropped back into the normal position just as soon as the apparent danger had passed. In conclusion, it may be well enough to add that our flock of poultry for that season was composed chiefly of Plymouth Rocks, that fact alone accounting, perhaps, for the successful decoying of this wild representative of the fields among them, the close resemblance between them being quite marked, and certainly very deceptive in the case of half-grown pullets.

Benj. T. Gault, *Glen Ellyn, Ill.*

AN ELUSIVE PAIR OF SCREECH OWLS.

For four years I have tried to get eggs from a pair of the Screech Owls which nest in the Connecticut River meadows, half-a-mile from here. They have been unusually sensitive over my intrusions, I think, and have escaped with only slight sacrifice until this year.

The woods back from the river are full of hollow maple trees, many of which are ideal nesting places for the little Scops. On April 26, 1894, the water being about fifteen feet above summer level, I was rowing through the woods after Crow's nests, and noticed an almost perfect Owl's hole, in the under side of a sloping limb of a soft maple, about ten feet above the water. To test it I bumped the boat rather sharply against the trunk, and instantly, as if I had touched a spring on a jack-in-the-box, a beautiful grey Scops appeared, seated in the mouth of the hole, with ear tufts erect, snapping beak, and eyes like full moons. I, of course, started up the tree, and had climbed hardly half way when "grey ears" left the hole, and was quickly followed by a mate of the red phase. The first flew off out of sight, but the red one, the mother I fancy, perched on a limb about twenty feet away. She (?) showed *no* ear tufts. About two feet down in the hole were two blind, white little owlets, two freshly killed "deer mice," and three eggs, one pipped. On holding this to my ear I could plainly hear the chick squeaking inside.

I had no opportunity to watch the brood, and hoped for better luck next year, but that fall honey bees claimed the hole, and filled it with comb. In 1895, with that hole of course out of the question, I searched every other place I could find, but did not locate the pair until on June 2 I found three grey youngsters sitting outside a hole I had overlooked. The mother was near by, and grew very angry when I shook down one of her little ones from a sapling to which he had fluttered.

Next year, April, 7, 1896, I found a red bird in a very shallow hole in the verticle trunk of a maple, not 1000 feet from the old bee-tree. I hammered on the trunk without flushing her, and after climbing the fifteen feet up from the water to the hole, put my fingers under her and counted the three eggs. I believe she did wink one eye, but she made no attempt to grip my fingers, nor snapped her bill as I have had them do in the roosting holes. Nevertheless, she deserted the eggs, and my brother took them on April 11, cold, and showing only a slight trace of incubation. On the 25th a hole had been dug three inches deep in the rotten wood lining of the nest, probably by squirrels or mice. The next

winter the hole was used by both squirrels and owls, as I found the signs of both on the ice beneath it.

In 1897 I lost the birds entirely, but think it possible that they raised a brood in the 1895 tree.

This year my brother found a grey bird roosting within 200 feet of this (1895) hole. He was sitting up in the mouth of the hollow limb so that his head and horns showed from below, but dropped back when the tree was thumped. On April 12 I visited all the old holes, first hammering the trunks, and then climbing, and repeated the experience of 1896 to the letter, finding a red bird which would not flush nor wake up at all, in the same shallow hole. I left her two fresh eggs till the 23d, but she again deserted.

The 1895 hole was the last one visited—at 7 P. M. Though we rowed up quietly the bird must have flown before we reached the tree, for none flushed. On climbing up I found the limb so rotton that I decided to destroy it. Imagine my surprise when on opening the hole I found six eggs, still warm. The embryos were well formed. (It had been an early season, with all the first nesters ahead of time.) No bird came about, though I was in the tree for ten minutes. She may have left the nest for a few minutes of exercise at twilight.

Is it the usual rule for an owl to desert her nest as promptly as one of these did?

HENRY R. BUCK, *Wethersfield, Conn.*

EDITORIAL.

Our fellow member, Lieut. John W. Daniel, Jr., whose expected trip to Puerto Rico was interrupted by the peace protocol, now expects to be ordered to Cienfuegos, Cuba, and he promises to acquaint us with his experiences and researches while there. The present circumstances will give an added interest to any thing that the unfortunate island may give us.

We again find ourselves in the midst of a period of stagnation so far as field study of the birds is concerned. It is so for some of us, at least. The question naturally arises, What can be done until the birds return again? There is always one thing that can be done which should become our most pleasant and profitable duty; and that is to review the note-book of the past season, comparing it with previous ones with a

view to correlating the facts gathered by much hard work and inconvenience, as well as pleasure. I take it for granted that all of us have in mind, in all our study, the advancement of our favorite science by this field work. With that in our mind, it becomes our privilege to place the facts learned where they will do the most good. Just as we are able to come closer to the truth according to the material at our disposal, in the same measure will those who have begun the investigation of some special topic be able to give us the truth. If, then, your note-book is to accomplish the purpose for which it was kept, day after day and week after week, parts of it, at least, must find their way into the hands of our committee-men. Will you not, each one, make it your pleasure to send at once such facts as you may have learned, to the appropriate committee? Let it be your *immediate* pleasure.

But the winter season need not be a time for dullness in bird study to many of us. There is, in the winter months, almost as much that is interesting among the birds as at other times. How many of us are really acquainted with our local winter bird fauna, and with the winter habits of the birds? Is there not ample room here for a great deal that is new and of great interest? I sincerely hope that the good work that was begun last winter in the way of making censuses, censo-horizons and horizons of the winter birds may continue with renewed energy and interest. I firmly believe that it is a work worthy of our best efforts: a work that will yield greater results for the same effort than any other field work. Let us fill the January issue with December records, making the month a memorable one in our experience.

CHANGES OF ADDRESS.

It is of the utmost importance that all changes of address should be promptly reported to the editor. Otherwise we shall not be able to keep in touch with each other. Please do not belittle this matter.

Mr. Walton I. Mitchell changes his address to 1953 Stout St., Denver, Colorado.

ERRATA.

The article entitled "Some Belated Remarks Upon the Nesting of Junco," should read "Some Belated Remarks Upon the Roosting of Junco."

PUBLICATIONS RECEIVED.

American Archæologist. Vol. II, part 10.

American Monthly Microscopical Journal. Vol. XIX, Nos. 9, 10, 11.

Birds and all Nature. Vol. IV, Nos. 4 and 5.

Book Reviews. Vol. VI, Nos. 4 and 5.

Bulletins Nos. 93 and 94, Ohio Agricultural Experiment Station.

Columbus Medical Journal. Vol. XXI, No. 8.

Eastman Journal. Vol. I. No. 2.

Fern Bulletin. Vol. VI, No. 4.

Journal of Applied Microscopy, Vol. I, No. 9.

Museum. Vol. IV, No. 12. Vol. V, No. 1.

Sportsman's Magazine, Vol. II, No. 11.

Suggestive Therapeutics. Vol. I, No. 5.

In the October number of the *American Geologist,* the leading article is by our Secretary, Mr. William L. Dawson; being a geological discussion of "Glacial Phenomena in Okanogan County, Washington." It will be remembered that Mr. Dawson has also published a "List of the Birds of Okanogan County, Washington," in the *Auk,* April, 1897. The whole scientific work was done during a residence of about fourteen months, in addition to the arduous duties of a pastorate in Chelan and the surrounding region. It is an admirable illustration of what can be done in any new field if the heart and will are in the work.

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